

# **DESIGN:** **AN INTRODUCTION**

Janet K. Smith

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**DESIGN: *An Introduction***





400

450

500

550

600

650

700

## T H E S P E C T R U M

Here is the source of all color-vision, in the so-called *white* light of the sun. This continuous gradation of the spectral colors can be seen whenever a beam of sunlight is dispersed by means of a glass prism or a shower of water drops. The different wave lengths of light are thus separated and the rainbow colors show themselves.

Objects are visible to us because of the characteristic ways they reflect or transmit, to our eyes, various of the component rays of the spectrum.

The six major regions of the spectrum are grouped as below:

Violet	from	400-460	wave	lengths
Blue	"	460-500	"	"
Green	"	500-570	"	"
Yellow	"	570-590	"	"
Orange	"	590-610	"	"
Red	"	610-700	"	"

# DESIGN:

A N I N T R O D U C T I O N

BY JANET K. SMITH



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## **F O R E W O R D**

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In this book you will find that the words "inspiration," "expression," "imagination," "intuition," lavishly employed in most writings about the subject, are here used sparingly. In recent years these terms have come to acquire a sort of exotic flavor, mystical overtones that have taken them out of everyday practice and thrown a veil of irrationality across the mental processes involved. This is not the fault of the terms themselves. But it does suggest caution in their use, unless one wants to confuse the reader.

The terms I have chosen instead are "idea," "purpose," "need," "analysis," "judgment." These words involve exactly the same processes of thought as the terms above which the general public now finds esoteric and obscure. But these words have not developed the fancy extra flavor.

No one can analyze a problem by intellect alone, if by intellect one reads cold mentality without emotion. True analysis brings an imaginative feeling into the problem, which is, exactly, "intuitive." Hunches, too, are often valuable, indicating an instinctive turning toward, or repulsion from, an idea, and they suggest a natural, temperamentally sound reaction appropriate to the person who has the hunch. Your hunch won't help me much, however, in all likelihood.

So, too, with "expression." The word has come to include a notion of license, of hang-the-other-fellow, let me alone to express *myself*. Often the self thus expressed turns out to be pretty small potatoes, and few to the hill. But every invention, every solution to a problem, each choice among alternatives, is the true expression of a character meeting with specific circumstances.

Only by imagining what will happen when you do, or do not, make this or that decision, can anyone come to any conclusions except on an eeny-meeny-miny-mo fashion. Imagination is really nothing mystical, however mysterious its ways of working may appear. It comes from clear-eyed examination of facts and alert attention to possibilities. Most people are so half-awake that such processes seem magical. But one proceeds from the known to the unknown in any problem. Imagination, however, enables one to avoid many pitfalls and even turn obstacles into stepping-stones. It keeps a check on memory, suggesting when it would be

profitable to let memory dictate a way of acting, and when remembrance might act like a brake on a wagon trying to go uphill.

So with the most puzzling of all the terms, "inspiration." This really indicates open-mindedness, a willingness to move along the way toward which indications point, to accept a go-ahead signal from one's own spirit, to see what one looks at and act accordingly.

I hope to make clear, in this book about matters of art, that the artist, the designer, is no Superman with x-ray vision or other strange endowments. He merely trusts himself to report facts correctly, and in accordance with his purpose he allows himself to act on the basis of felt or reasoned analysis. He won't let his way of working be side-tracked by self-doubts and uncertainty. But he keeps trying to work more and more closely to the facts of the case for that time and place and state of affairs. His experiments are to the point. He looks at things just as we all do, but his attention is less divided and therefore he sees more.

The artist is able to put into definite form what he sees. If he works with words, he is lecturer or author; if with objects, he is inventor, industrial artist, architect, stage designer; if with sounds and rhythms, musician, whether as composer or interpreter. Every human being is, potentially at least, an artist. The person who sees what he looks at, and can interpret it for others, is an artist, in some way, about some things. This includes all humanity. No others need apply.

## **A C K N O W L E D G M E N T S**

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Immediate gratitude should be offered to Mrs. James Helming, whose attentive reading, clear-cut criticism, and suggestions have been invaluable during the preparation of this manuscript. Miss Dye, librarian of the art books at Teachers College, Columbia University, has dug out from her library shelves many references but obscurely indicated in my notes, and has been generally helpful. Mrs. Havers at the Metropolitan Museum of Art, Miss Wooley at the Brooklyn Museum, Miss Manning of the Frick Art Reference Library, and Mr. Brooks and Mr. Burnett of the Museum of the American Indian, Heye Foundation, were also generous of time and interest. Miss Pearl Moeller of the Museum of Modern Art has been especially helpful in the assembling of many of the illustrations. I am greatly indebted to A. Philip McMahon of New York University for permission to adopt his terminology of "Symbol, Signal, and Sign."

One's colleagues and students are not to be disdained as influence, whether one takes one's own way in agreement with them or decides, from their example, to do quite the opposite. Books, museums, conversation, travel, one's own teachers and friends, and one's students, all bring their contribution to one's storehouse. These sources must remain anonymous since their specific gifts are often lost in mist, and go as far back as childhood days.

Janet K. Smith



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## **I   I N T R O D U C T I O N**

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# WHAT IS ART?

## DEFINITION

Art is anything made by mankind that solves a problem in a way characteristic of the maker. A solution is achieved in some material that is shaped through processes by means of tools toward the maker's purpose. The art object embodies in its completed form the whole solution of a particular problem (Plate 1). But the whole is more than the sum of the parts—for the product, the work of art, has a purpose which the parts alone cannot reveal in entirety.

## PURPOSE

### *SYMBOL*

The purpose may be chiefly emotional. That is, an art object may serve as a Symbol, awakening in us an emotional reaction—sometimes gentle pleasure, sometimes disgust, sometimes delight. The composition whose theme is discord may evoke violent responses in those who, unprepared, are confronted with such a work. Yet such a work may have art values beyond its shock effects. When we enjoy or dislike a work of art, we transfer to the object itself our personal reactions. If we enjoy it, we say the thing is beautiful; at least, it is beautiful to us, at that time. Our standards of what is beautiful undergo modification as we mature in experience, so that things we enjoyed and found interesting at some earlier stage of our development now seem insipid and juvenile.

Since experience alone develops appreciation, we should neither claim credit for our cultural standards nor scorn those of others that seem “lower” or “higher.” It has become common to express contempt for a taste supposedly “higher” than one's own. This self-preening is supposed to indicate that one is not a highbrow. The reverse attitude, pride in having more sensitiveness to artistic matters than the common herd, is equally pointless. Both present equal degrees of shallowness. Nor is it wise to insist on maintaining our present level by excluding further experience that might be disturbing. Many immature adults walk about like zombies, with eyes, ears, and minds closed, because subconsciously they are too afraid to admit the unfamiliar.

## *SIGNAL*

An art object may be a Signal, serving primarily to stimulate the observer to want, or do, or be something. This, too, will be accompanied by some emotional reaction. In this case, however, the feeling-response is recognized by the observer as being within himself, and is not attributed entirely to the object. Car cards are examples of a rather low level signal. They imply that we will be much better off if we'll only buy the product advertised. They are concerned with producing in us a particular will-to-do, as a result of which cash will enter the manufacturer's pocket. At a much higher level of Signal stand patriotic art and religious art, which are intended to arouse will-to-be in the observer. These are usually Symbol, too, in that they are considered to be inspiring by the observer.

An example of the way Signal is often grafted upon Symbol is shown in the attitude of the public toward the well-known painting, "Washington Crossing the Delaware." This work, which has very mild aesthetic characteristics at best, has been invested with qualities of nobility and grandeur by several generations of earnest but mistaken patriots. The subject is assuredly noble and inspiring, the persons austere and high-minded, and the result of their activities of immeasurable importance to us, their descendants and heirs. But it is quite beside the point to confuse these inner essentials of the characters in the painting with the painting as a work of art. Its Symbol is in reality quite weak. Its Signal, however, still has vitality and import.

It is artistic vulgarity to confuse the two purposes, as is so commonly done, by infusing the greatness of the Signal upon the form—the arrangement of Line, Shape, Mass, and so forth, in a rhythmic and balanced plan; in other words, the Symbol. Significance has a valuable gift to bring to the abstract art qualities in a composition, but it should supplement the Symbol, not dominate it.

## *SIGN*

The purpose of an art object may be neither Symbol nor Signal. It may be Sign, which adds to knowledge or information by description. Books of instruction, diagrams, working drawings, serve this purpose. Some packaging supplements Signal with Sign by telling a good deal about what is within the box. "Story" painting (Plates 2, 3) and the Rogers' Group in sculpture (Plate 4), both beloved of the nineteenth century, are patent examples of this category.

Many works of art have a compound purpose. To understand them fully, they must be apprehended in all their functions. The more successful objects are significant and complex enough to satisfy the inquiry and contemplation of men of experience, interest, and

aptitude, for decades and even centuries. Such works possess a universality that transcends the era of their making. When an object is successful through long periods of time, we call it a masterpiece, whether it is a painting of the Madonna (Plate 1), a Persian miniature, or a bronze jar from Shanghai.

## TEMPERAMENT AND APPRECIATION

There are certain kinds of art objects of the highest type that will appeal only to observers of a certain personality and temperamental bias. Some great art works can, therefore, never appeal to these same observers. Taste is not an absolute universal but is partially conditioned by the temperament of the observer (Plate 6).

Variation in taste should not deter one from trying to grasp the artist's intention, however alien it may seem, for intimate acquaintance with a wide range and variety of art works inevitably enlarges the spirit. One will admit to one's inner circle only a few friends, those of like temperament to oneself; but one may admire and enjoy occasional contact with many differing acquaintances, if only to be fondly amused by their idiosyncrasies.

Do not turn your back on an art object that does not set up an immediate bond of contact with you, but consider it open-mindedly (Plate 5). Doing this is not easy, especially with unfamiliar kinds of art objects. If you persist, however, you will be rewarded.

Sometimes the meaning of a work, its Sign, lapses with changing cultural conditions and as languages are forgotten. Carvings on Egyptian tombs, Medieval manuscript illustrations, are obscure to our minds. Craftsmen of those periods used different sizes of human beings to indicate levels of importance, and they put several incidents into one picture without leaving us guideposts to untangle the combinations of time and place that were fused into one well-integrated composition (Plates 2, 5).

An art object of the Signal type may also become useless, because those who see it do not realize what was intended by its maker. Exotic forms from alien cultures are subject to this. The many-armed Siva of Hindu art or the jackal-headed Egyptian Anubis-image may seem to us repulsive rather than inspiring (Plates 5, 6).

Occasionally even the Symbol of an art work is no longer valid. Certain Romanesque sculptures with angular flickering drapery, the elbows and knees bent at sharp angles, today

seem nervous and irritatingly distorted. For the artists' contemporaries these were as exciting and dynamic as to us are the swooping lines of the newest aircraft. But when every purpose is meaningful to the observer, the work of art stands a full chance of being accepted at the time it is made and for all subsequent times that the observer understands its purposes (Plate 1).

## ART IN AMERICA

### *NINETEENTH CENTURY*

We in America have not yet generally recovered from the nineteenth century. The industrial revolution brought about the final breakdown of the continuity of our earlier artisan tradition. No longer did every workman, as a matter of course, absorb design and taste while he was learning to use his tools. Under the master and apprentice system the young boy had learned by example and observation, by the constant criticism and supervision of his work by his master, who was a skilled artist. Lectures and theory were sparse, talks and demonstrations many. As the lad grew in experience, his work was observed alongside that of his master by a public that understood and enjoyed fine things and scorned clumsy workmanship. It was a brisk organization, based on team work. In the nineteenth century, however, it was the eccentric and exhibitionist individual maker of art who was fostered and simultaneously condemned.

The wealthy young man no longer actually participated in the arts; he no longer designed his own house or its furnishings, for example, nor did he supervise the artisans—a commonplace practice during the eighteenth century. In the nineteenth century he merely supervised the men who supervised the new machines that turned out thousands of marvelously duplicate articles. And so, for him, the artist became an entertainer, like a dancing bear or a trained monkey; except that the artist produced something amusing to buy as a trophy and token of the machine-produced wealth. We have inherited this opinion of the arts as a sort of luxurious pastime, well enough if you have nothing more important to do, and of the artist as a romantic mixture of peculiar ways and weak habits and erratic imagination.

In the healthiest state of any culture or civilization the various arts are taken for granted as integral parts of everyone's life. Those especially gifted work professionally or as devoted amateurs in one or another aspect of art. There are few dilettantes. Nobody will hold aloof because he thinks the arts are special and mysterious or "impractical."

## TODAY

The last few decades have seen a revival of the older American folk arts. This new life is spreading from the country to the metropolis and from the city back to rural areas. Weavers in the Carolinas and Vermont and Oregon began by utilizing their local wools and cotton and linen fibers to reproduce the coverlets (Plate 11b) of our Colonial forebears. Now, more and more, they originate for today's way of living modern upholstery (Plates 12a, 28), dress fabrics, and table linens. Small local or home industries are again in operation in the fine clay-bearing hills of Indiana, Ohio, New England, and the great Pacific coastal region. Local traditions and characteristics determine the glazes and shapes: in the East salt glazes are frequent; in the West glazes from lava and rocks of Death Valley. Sometimes the workers are led by a professional artist such as Glen Lukens in California, or by an old established firm like the Rowantree Kilns of Maine; sometimes they emerge spontaneously from the people of an area (Plate 26). Standards are not always the highest. Some of the pieces are decidedly crude and homely, but the best are unrivaled today, whether done for rustic interiors or an urban setting.

Besides this revival or revitalization of folk arts, there is a new vitality in some art schools and some college and university art departments. The creative sap is rising particularly well in certain junior colleges in California, in an adult education program in Oregon, in a professional school near Detroit, and in another in Chicago, in experimental colleges in Vermont, North Carolina, and Ohio, in a veterans' art center sponsored by an alert museum in New York City. Eager hobbyists and an informed public may soon be finding leaders who have been trained in these outstanding educational programs. Manufacturers and the advertisers and sellers of various products can look to these sources for the young people who can provide, for their articles, designed presentation and keenly analyzed construction. America is again active in the arts which serve every-day living.

## GUIDE TO UNDERSTANDING AN OBJECT

### I. Who made it?

an anonymous craftsman?

an artist with a reputation?

a designer collaborating with the machine?

II. When was it made?

III. Where was it made?

IV. Why was it made?

what was the original use of such objects?

what was the purpose of the maker, in doing *this* object?

symbol?

signal?

sign?

does such an object continue to be used for its original purpose?

V. What is it like?

visual data

size

shape

material

color

texture

tone

mass

relation of parts to whole

tactile data

material

shape

size

surface qualities

weight

arrangement of these and other data

by tools

by processes and media

by personality of the maker

influenced by his era

influenced by his racial heritage

influenced by his personal characteristics

VI. How is the object organized?

for balance

symmetrical

occult

**for rhythm**

**staccato**

**legato**

**for emphasis**

**VII. Who is supposed to use it?**

**VIII. What would its surroundings be?**

**IX. What effect was intended, aesthetically?**

**discordant**

**dissonant**

**concordant**

# ART AND DESIGN

## DISTINCTIONS

The popular conception of art, especially Art with the capital letter, is a painting in oil colors representing some homely, picturesque, or grandiose scene. The evident intention of the artist was to present a reminder of Grandfather's farm with the apple trees, or the sight-seeing trip taken back in the 1920's. This kind of sentimental and documentary recording (Plates 3, 4) is now done by the camera, and more accurately. But it requires the human being, the artist, to *interpret* the matter portrayed, a thing which the camera can hardly do (Plates 1, 5, 8).

The artist of today who is worthy of the name, and who chooses to paint natural forms, works toward a personal revelation of the way he himself feels. His art product, in keeping with the times in which he lives, is dynamic (Plate 9b) rather than static in effect, and he uses distortions consciously to heighten the mood he is establishing (Plates 9a, 16).

He often tries to recapture the freshness of the viewpoint he had as a child, although he may be working with adult material in a mature manner. This is not the same as being childish, which never quite works out.

## CHILDREN'S ART

Let us digress for a little and examine the way a child thinks and how the child creates with art media. Most grownups, when they look at the art products of children, wonder how the child can be so proud of those scrawls and the oddly distorted figures and buildings they draw. The adults are judging the work by ordinary standards, which are actually a dilution of the nineteenth century attitude toward professional drawing and painting. This required as literal as possible a copying of the surface and colors of objects and the use of "correct" perspective. Children, however, do not see the world that way until they have been tamed by adult approval and reward.

The child draws as he does because he must show how he feels about objects and experiences. He's not concerned with whether his work looks queer to others until he becomes aware of adult reaction to it. He isn't self-conscious about art standards and "good" drawing until he has been made so by his relatives and teachers. This does not mean that the child does not care what other people think of his work; on the contrary, he wants very much to have them share his delight in it. But at first he assumes that they all see the world as he does, not with eyesight alone, but with mind and heart. He works in the childlike way, although the parents expect the child to try to express what he sees in the same way an adult would.

As the child approaches maturity and desires so passionately to take on adult status and be grown-up, conventional art standards influence him with increasing forcefulness. Now he is apt to falter and, growing self-conscious, bury his creativeness and take to the accepted ways of doing things. He may give up working in the arts entirely, in obedience to the nineteenth century dictum that only the "talented" can be artists and that artists are a queer lot, anyhow.

Until this lamentable and largely mistaken conclusion is reached, there are several stages through which the child, as artist, passes. The art products characteristic of these successive natural periods of growth ought to be understood and accepted for what they are, not for what some adult thinks the child ought to want them to be.

The first stage is Scribble. A colored crayon or a pencil and space—blank wall or wall-paper, a book, anything handy is fine. Joyfully the toddler smears and scratches. How he would enjoy a fist-sized brush and nice wet colors, an apron or bathing trunks, and mother's approval. Mud pies are all right, too, but clay holds its shape better and can be punched and squeezed into all kinds of fine-feeling squiggles.

This leads into the next, or Manipulative, stage, when the child discovers the nature of his materials and tools, and learns firsthand how to master them. The results still won't look like much but a mess to a grownup, but this is an essential stage for the youngster to go through. At any age level there must be some of this exploratory activity whenever a new medium is tried out. For the small child, adventuring with the materials is sufficient in itself.

Before long the child will grow beyond this, all by himself. He draws straggly-legged figures with stick-like arms and a wide grin, firmly planted on a base line that represents the ground. Gradually the pumpkin-headed folk get less grotesque. People are his great absorption: he will bring them nearer reality and yet not lose his individual way of depicting them, if only his work is not made fun of. Throughout the Expressive stage of children's drawing, the meaning and mood of the subject and what is happening to the people in the picture are of major importance to their creator, the child artist. Along with these drawings go designs,

either abstract or using material from nature, which are often exquisitely balanced arrangements of color and form.

Color is used, at first, in completely arbitrary ways. Green horses and purple coiffures are not meant to be comic, but satisfy some inarticulate and personal attitude toward the animal or the person shown. Color is often merely the result of the next crayon which comes to hand. Buildings have their staircases and furniture and inhabitants visible on the various floors, although the drawing simultaneously shows the outside walls, too. Perspective (a clever device developed during the Renaissance in Europe and inherited by the culture of the western hemisphere, to give an illusion of depth in a flat drawing) doesn't worry the child until he approaches maturity or until his elders worry him about it. Things further off are drawn higher and higher up on the page, that's all. The same method is still used in Oriental countries by sophisticated artists. It was also the way of the ancient world.

The most clearly understandable view of a person or action or detail is given, even if it means that the horse and cart are in profile while the man leading his horse is turned full-face to the observer, and it seems to the adult that he is not going along the same route as his horse and wagon. The trees around a pool, as a child draws them, are apt to look as if they were laid out on the ground in four directions, at right angles to each margin of the water. The pond itself is full of fishes, each in profile, arranged in a pattern within the flat-view water. Thus it is as if you looked down on the water and through it at the same time. Along the edge of a hillside, fence posts and a house proceed, each at right angles to its own spot upon the shifting slant of hill-ground, not standing as uniformly vertical objects along a varying earth-slant, as the well-instructed adult would draw them.

This combination of bird's-eye and worm's-eye and profile and x-ray views in the one drawing is natural for the child. As a matter of fact, it has definite advantages over perspective portrayal. Only one composition is needed to give all data on the near and the faraway: nothing is hidden by something else in front of it. You can tell what goes on in the houses at the same time as you are out in the street enjoying the sun, whose visible rays enliven a streak of blue at the top of the page, thus indicating sufficiently for the child that the whole sky is blazingly clear. To represent this conventionally would take several drawings, all of which would have to be recalled or studied at the same time. The child presents rather than represents (Plate 13).

## SYSTEMS OF REPRESENTATION

Our grown-up convention of perspective, requiring the representation of what we can actually see rather than what we know to be there, is, after all, just a convention. There are other methods which the child's method of drawing recalls (Plates 5, 19). The ancient Egyptians and other peoples drew that way, too. As they looked at the drawing or sculpture of the scene, they translated the flattened-out trees around the x-ray fish pond into the three-dimensional reality, as we now translate the dwindling ranks of tree trunks showing glimpses of the water between them, in a perspective drawing, into the same kind of three-dimensional original. The language has a different dialect, that is all; it says the same thing in the end, once you've learned to read it. And you have to learn to read any of these languages of art, including that of the child.

## EDUCATIONAL PRACTICES

Educational practices in public elementary schools and at the more advanced levels, including the specialized professional art schools, seldom make the most of the abilities inherent in the American people. On the one hand, we find the technical or trade schools, where vocational training is given to boys and girls of varied background and ability. The graduates have learned the technical demands of the machine and the characteristics of materials. But there is a sharp cleavage between execution and the quality of the design. The motifs are derivative—shoddy, most respectably dull reminiscences inherited from aristocratic Europe. The art work in regular high schools is also conventional and dull, as a general rule. Here and there, fortunately, a gifted teacher-artist draws out from her students their own thoughts and personal ways of doing, while giving them sufficient technical ability to present their ideas effectively.

On the other hand, professional art schools train their selected students to design, on paper, imitations of the more florid European models, whether in architecture, painting, or sculpture. Technically clever, the work is either ostentatious or insipid, an elaborate froth skimmed from the reheated cauldron of the past. A very few art schools exist where men who

are themselves productive artists of high rank foster in their students competence in the technical aspects and inspire them to experiment throughout a broad area. Their work is based on the heritage of the past centuries, but explores the possibilities of today and tomorrow. You will find little that is banal, few whimseys, much that is rational and fresh and unpretentious. Their work has the vigor of the art which flows normally from people who have something to say. No rehash of the past, no recollection of a faded Renaissance, can substitute for awareness of contemporary life and its possibilities. Creative development, not idolization and re-creation of the past, should be our goal. Instinct for the production of beauty is still universal, but attitude needs to be reoriented. As it is now, the talent of the pre-adolescent child very often evaporates as soon as formal art instruction begins. Is it intelligent for us to allow this to happen? Are we so involved in a rigid system of education and mistaken adult sanctions that we cannot support unhampered growth of our own children?

## MODERN CONCEPT OF DESIGN

To the layman, Design connotes a drawing indicating the decoration to be added—much as one puts on powder and rouge—to make some object prettier (Plate 23a). The real designer, far from merely trimming things up after they have been constructed, is first of all concerned with solving problems by means of materials and processes (Plate 23b). The maker of the designed object arranges, through conscious and reasoned effort, his choice of color, line, mass, or any other of the art elements. Guided by his sense of proportion, he adjusts the selected elements into a configuration, a pattern, using such repetitions and contrasts and transitions as he may find necessary to materialize his mental image (Plates 10b, 15, 25a).

The skeleton of the structure is vital, however much or little enrichment the surface will receive. The completed structure may be complex or simple. Ornamentation may or may not be present. It should never be added as an afterthought; it must be an integral part of the idea and appropriate to its intended use. The stripping-off of unessentials, characteristic of the best contemporary design, does not necessarily result in a barren and dehumanized emptiness. More and more the materials are so used as to provide warmth and richness in the finished article without losing the simplicity we are coming to love (Plates 12a, 29a). The “antiseptic modern,” one of the extreme phases of the early experimental period, has

given way to a more livable version of modern design without losing precision and practicality. Underneath sound design is the construction, the logical analysis, the selection and arrangement of the component parts, appropriate to theme and to the magnitude or unpretentiousness of the problem. As its supreme attribute, this may achieve beauty, when the observer's senses and sense of logic are stimulated and gratified.

This concept of design fits any art form: music, the dance, literature, drama, as well as the graphic arts. The definition includes the involved pattern of a magnificent cathedral—simple shelter elaborated, by intense study and the collaboration of many trained and brilliant minds, into a great monument; or the modest assembling of steps and groupings to form the figures of a square dance.

No artist can stand alone for long. He needs an audience, responsive in some degree to the qualities of his work. The artist may be so far ahead of his time that the audience can be only a projection of his longing for appreciation, transferred in his mind to the future and thus seen as an enlightened posterity. Then, too, the potential audience, real or imagined, should be able to confront the work of the artist in order to see and approve, or, perhaps, reject.

## MACHINE AND CRAFTSMAN

In our machine-age civilization there is comparatively little place for the individual art object executed lovingly by an artist-craftsman. The object becomes too precious for general enjoyment. But the original work may be chosen as a model for multiple reproduction by the very machine which seems to have supplanted the craftsman. Then the public may benefit from the artist's vision, his knowledge of materials, and acquaintance with processes. One cannot expect to find only art treasures on the counter of every dime store. But large-scale manufacture of a finely designed article will make it available at low cost to many buyers (Plate 27). The master craftsman can now serve a large public instead of a few individuals (Plate 35).

The machine has no preference: it will make handsome things as easily as ugly ones (Plates 23a, b). The materials for well designed objects need cost no more, the percentage of the total cost assigned for distribution and merchandising does not necessarily rise. The advantage lies in the general use of brain power; fine designing is an attribute of good minds. There are also plenty of good brains among the purchasing public. The two need to recognize each other.

The best of today's articles of use are being presented in very plain terms: the material from which they are made and the tools and processes of their making provide in most cases the only decorative effect. Each era of the past produced its characteristic style of applied ornament. Today we are working toward a style which is in itself its own decoration, an unornamented style.

Often the use to which the object is to be put completely determines its form and surface treatment. This is termed functionalism, a name given nowadays to objects which reveal clearly in their final form the function they are to fulfill. A bank building which is functional should look impregnable and conservative and possibly magnificent, but it need not be a replica, or even a reminder, of the palace of some fourteenth-century Venetian doge. A railroad station should have doors to accommodate the tides of passengers; the waiting room should be spacious, the corridors easily found and followed. It should not be a repeat of the monumental Baths of Caracalla, that ancient Roman edifice unnecessarily echoed by so many Union Stations all over the world.

Fewer concessions are being made to the public's expectation of "trimming" on things. Instead, a plain utilitarian surface, for many items, is provided by stainless steel and various metal alloys, spun aluminum, sand-blasted glass, plywoods, and the like. These have as luxurious an appearance as the celebrated polish of traditional woods and the patina on historic metalwork. But the upkeep on today's finishes is accomplished with a great deal less energy and expenditure. This, too, is part of functionalism.

No lovelier or simpler shapes can be had than in beakers and petri dishes and other laboratory utensils. Designers are adapting their completely functional shapes to household uses now. Hotels have for a long time been able to buy graduated sizes of kettles of fine shape and enduring materials and finish. Some of these are at last appearing on the market for individual consumer use. All in all, however, the best designing is still being assigned to machines and industrial tools rather than to articles for the layman consumer. Part of this state of affairs has been caused by the public's silence as to what it really wants, its willingness to accept anything the "tell-'em-about-it" boys put on their blurbs. One can't help buying what the advertisements hail as the latest and most amazingly advanced gadget, but one should not accept tamely such things as don't really work out in use.

Is there anywhere a hot-water faucet handle that doesn't get too hot to hold with comfort or that will not pinch the unwary hand? Is there a house window that opens easily and quickly, yet is actually wind-and-rain-proof? How many bureau drawers refuse to stick in damp weather? How many handles to things are too small or too flat, too wide apart or too slippery, or too easily broken off!

People who use a miner's compass or calipers or ball-bearings get a handsome and serviceable article. The general run of folk who want similar simple and foolproof and beautiful everyday articles had better rise up and howl long enough and hard enough for the manufacturers to hear and give heed. Then maybe the advertising men will use factual material instead of fantasy. Then we might find out what the things we buy are made of and what they are good for.

# WHY ART FOR YOU?

## YOU AS A CONSUMER OF ART PRODUCTS

Since every article of use, from shoes to saltcellars, from cravats to easy chairs, from hack saws to helicopters, has been designed by someone, you are a purchaser of an art product every time you spend a dollar or a dime. The quality of the design, however, is extremely variable. Most articles for sale, no matter what the price, are no better than mediocre; at worst, they are mere rubbish. It is wise to learn as much as possible about art quality, so that you will be better able to choose the superior product when you go out to purchase something.

You as a consumer, plus the millions of other consumers, control the goods offered for sale. By our purchases we bring approval or indifference or refusal to the items manufacturers make. The local store is thus the most positive barometer of the taste of any town or city, and one can tell the character of a particular place by visiting its leading store.

If we buy merchandise that has superficial attractiveness only, without possessing genuine value in material or construction or usability, we are pouring our good money down rat holes. And we are at the same time discouraging manufacturers who would give full value for the price. They see the public buying goods whose quality has been skimmed on. They watch the quick succession of the get-it-and-run makers of novelties, which break up while you're taking them home. The good-value men can't stay in business if the buying public doesn't care what kind of stuff it buys. Why cheat yourself by indifference and ignorance? The more you know, the better off you can be. In the long run, it's not fun to keep on being fooled.

Today we accept the idea that design in the larger sense means full adjustment of an object to its use, to the materials and processes and tools of its making, and to the environment for which it is intended (Plates 29, 30). The better the design the more satisfactory the object—and vice versa, in all likelihood. The better the designer, the more likely it is that he can build good performance into his product, whether it is an ink bottle, a teapot, or a weighing machine. He will certainly not neglect to try to make the object handsome as well. Even Henry Ford finally had to redesign his Model T, to keep up with his competitors who were making cars as efficient as his and far better looking.

Any improvement in one's knowledge of design and understanding of value in art quality will affect us, chiefly as consumers. But we are all interpretive artists whenever we choose from comparable articles. We collaborate, unconsciously for the most part, with the actual designer, by selecting his product from among those done by other persons.

Let's get out of the class of people who buy in a sort of "eeny-meeny-miny-mo" casualness, or choose a thing because it is "cute" or "amusing" or "quaint." There are so few things that really need be cute. Nor must we therefore be the demon value-getter at all costs. We can remain sensible in relation to the whole matter of cost while we still try to get our money's worth in design.

Here are some yardsticks. A well-designed object, at any price, will do what it sets out to do. A pitcher will pour, neither spurting nor drooling; a key ring will let you insert or remove a key without breaking fingernails or using a burglar's jimmy, but it will not drop off the keys by the wayside. Neither will wear forever. But each should give reasonable length of use for reasonable cost and care. A kitchen chair should not develop the wobbles after six months use, unless you paid less than three dollars for it—always excepting emergency service as a projectile. You ought to be able to get what you pay for, and not have it an eyesore or jerry-built.

There is often a logical relationship between cost and value, but not invariably, by any means. You have to examine the things carefully, not just buy by price. You can almost always find both pretty poor value—usually plenty of that—and quite good value in any given price range if you're alert. Look at an item, think about it. Don't go around in a daze paying out the sums you decided beforehand you'd have to. Bring your mind home from vacation.

## YOU AS WORLD CITIZEN

Another aspect of the arts may well be brought to our attention. As the men and women of our armed forces move across the habitable globe, and as those working in rehabilitation take up more or less temporary living quarters in the devastated areas, they see at first hand examples of all sorts of exotic native arts. Some are primitive and untouched by the blight of the tourist trade (Plates 31, 32); others are already almost completely spoiled by poorly managed commercial exploitation. Some peasant arts (Plates 33, 34) are not yet superseded

by the machine age, although it encroaches on them swiftly. Examples of all of these are seen behind the actual fighting fronts, or still extant in museums in the larger foreign cities, or preserved as part of daily life.

This wide experience with arts hitherto unfamiliar to most Americans is sure to have its influence. One marvels at the skill which the most primitive savages of the jungle can muster; they carve wood, often iron-hard, braid grasses and fibers, and inlay one material upon another, all with the crudest of tools. The language of their design is often strange to us, with seemingly violent distortions of human and animal forms. The Symbol, the Signal, the Sign of their purpose are all alien to us. Primitive work is so bound up with the peculiarities of climate and natural materials, so involved with religious belief and traditional ways handed down from remotest antiquity, that the actual object often requires real effort for us to adjust to its strangeness. But the skill is evident, and also the desire to have all articles of use individual and meaningful and handsome.

The art work done by peasants is also distinctive and identifiable, even to the tribe or village or yet smaller group. A sort of over-all national characteristic is discernible, with particular methods of using color or embroidery threads, leather, wood, or fabric. Certain shapes recur throughout the design, certain ways of working, so that with experience the observer can say at once, "That is a rug from the tribe of the Tekke Bokhara," "This was made in such and such a canton of Switzerland," or "One of the Lang family carved this piece."

These contacts with diverse foreign cultures will undoubtedly be supplemented in this country by students from foreign lands, coming to our colleges and universities in far greater numbers than we have seen before. We will cheat ourselves if we do not make the most of this chance to share in their richness of background. Let us not persist in thinking of such students as mere curiosities, unrelated to anything which has reality for us Americans. Their lands and ways of life have been very real, for months and even years, to many of our relatives. We will do well to continue a concern for such no-longer-distant places and peoples. Their ways of doing are fascinating in themselves. And they offer evidence of other patterns of thought whose difference yet basic likeness to our own bring home to us the curiously universal qualities of human beings. Through a multitude of cultures, past or present, it is yet truly one world.

Not many years ago America herself was settled by varied groups, minorities who left their parent lands to find greater freedom in worship, economic improvement, or social betterment. They came from every part of the earth: some driven by famine at home, like the Irish in the last century; some brought as dumb cattle in the infamous slave ships; some

setting forth alone, solitary venturers into the land of hope. All have remained, contributing their rich gifts to America.

It is for us to build their native gifts more securely into our culture by appreciative use of their contributions. Sympathetic and conscious study of native arts would help us in our approach to grave interracial problems. We have the means to do this. We proved it in our mobilization for war. We must now mobilize our hearts and minds to these tasks of peace.

## YOU AS AMATEUR IN THE ARTS

Important as it is for us to be acquainted with and enjoy the broadest possible scope of art in finished forms, invaluable as an understanding of art quality may be to us as consumers, there are additional values to be gained by individual participation in the arts. Our pernicious habit of having everything done *for* us gets in the way of having a lot of fun. We go to watch a baseball game, instead of playing it ourselves. If we went to study the professional technique to improve our sand-lot practice, well and good, but we usually stop with seeing the fellows who are paid to work at it. So with many other sports and skills. We think we have to be good at a thing to do it at all.

So-called "ability" in the arts, talent, is beside the point for most of us much of the time. If one has that, extra, so much the better. But any normal person can get real pleasure out of tinkering and pottering about with art hobbies even at a very simplified level. The further you let yourself go, the better you'll get to be (Plates 38a, 40), but the main idea is just to make a start. The water is seldom as cold as you think it'll be, after you've jumped in.

Indeed, everyone above the grade of mental defective possesses art ability—usually quite a bit—although he may never have consciously used or developed it. And, after all, some people with very disturbed mentalities have a sort of one-sided talent in art that's often astonishing (Plate 41). So surely it's a good plan for everyone of normal mind to put all his abilities into high gear!



## ILLUSTRATIONS FOR PART I

These illustrations range through time and space. The major emphasis is, however, on modern American work. Included are examples of independent art objects which minister primarily to needs of the mind—sculpture in the round and in relief, painting (both representational and abstract), a mural painting, a poster, a photograph, a tapestry, a drawing made by a child. Among the objects of decorative art, which serve first some physical need, are a number from primitive and peasant cultures, a few from historic periods of our European inheritance, items of folk art (including some contemporary objects in this category), and several examples of things made by mass production methods or otherwise commercially available.

Thus the works of art shown in this book include unique objects intended for the one fortunate owner as well as those made in multiple numbers and salable at relatively moderate prices. Many were done by the artist for his or her own use: such are the folk-art and peasant-art objects and those from exotic cultures, and the "Coral Sea" by the contemporary American Marguerite Zorach, which is an example of hobby at a professional level.

Each example reflects the time and place of its making, expressing its contemporary conditions of material and technique and the local climate of thought. It is influenced strongly also by the personal characteristics of its maker. This is as true for the anonymous artists in an unsophisticated culture as for the articulate and highly individual man in a developed culture.

The impact of each example will depend on the experience, personal bias, and physiological state of each particular observer. It depends on his maturity, both of mind and of emotions. It reiterates his education, both formal and informal, and is influenced by his peers and his community as well as by his school.

The text attempts to stimulate and guide you as an observer of art objects. Each work of art is an entity, awaiting your attention and understanding.



PLATE I

# MADONNA OF THE MAGNIFICAT

*Sandro Botticelli*

OIL—CIRCA 1479

*This panel by the master painter Botticelli (which is counted among the treasures of the Uffizi Gallery, Florence, Italy) includes in its superbly designed circular shape seven persons, all arranged without the least crowding or distortion of pose. The Madonna is inscribing, in a book held for her by young angels, the words of the Magnificat, her hymn of praise. The first verse is already engrossed on the page. Her absorption makes her oblivious to the interest of the attendant angels and even to the Child himself.*

*By the time this painting was made, the contemporary Italian artist had access to complete anatomical information and a perfect understanding of draughtsmanship. Upon this foundation of technical knowledge Botticelli erected his compositions in which grace, an elfin distinction of personage, and enchanting details in dress and decorative accessory are interwoven through highly individualized design into works characteristic of his personal genius.*

*This composition had in its own time a great impact both as Symbol and Signal. Today we still may take similar inspiration from the subject. Even if the Catholic tradition is not an immediate inheritance, we all can find pure delight in the lovely youthful figures, the skillful composition, the fairy-tale coloring, the charming details. Independent of time and place, the beauty of this work is as nearly universal as one can find. A Buddhist Chinese, a Moslem or a Hindu, can feel its loveliness and enchantment, though its religious function might remain completely obscure to them.*

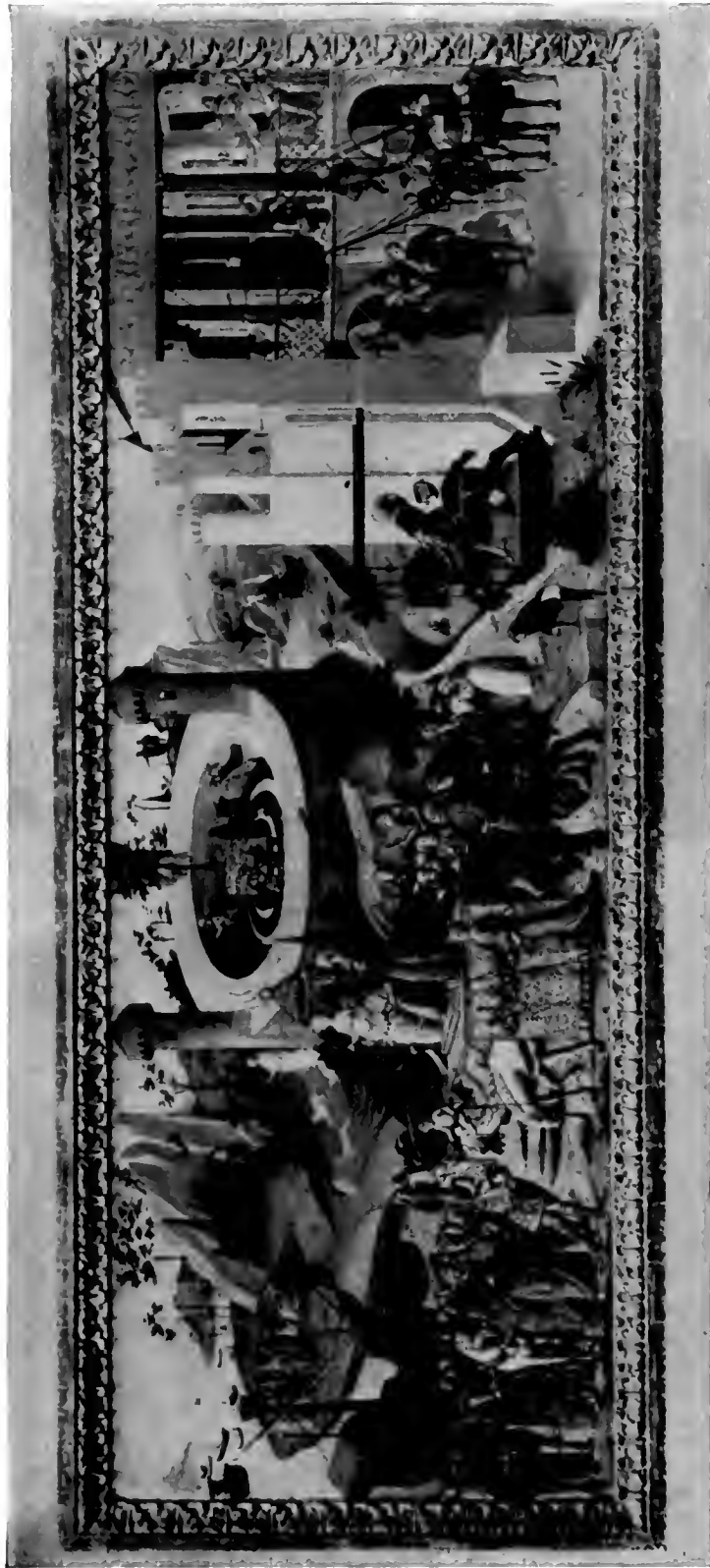


PLATE 2

# CASSONE PANEL

*by a follower of Pesellino*

MID-15TH CENT.

PANEL FOR A FLORENTINE MARRIAGE CHEST

*In the mansions of the early Renaissance, such chests with inset panels served as multiple-use furniture.*

*The major incidents in the story of Jason and the Golden Fleece are depicted simultaneously in this particular panel. The characters of the classic Greek legend are shown wearing the rich dress of the artist's Italian contemporaries. At the lower left Jason, at the head of his band of heroes and demigods, is greeting King Aeëtes of Colchis, who welcomes the visitors from a sumptuously draped horse-borne platform. The next scene in point of story sequence is at the upper right, where Jason kneels in a room of the palace while the king instructs him in the tasks preliminary to his quest. Below this incident Jason is shown mounting his steed, and to the left of this he gallops across the drawbridge with such vehemence that his cap is dislodged.*

*In the center background is the Field of Ares, with its towers and heavy walls. Several parts of the adventure take place within this enclosure. Jason plows the field behind the great bronze ox, sows the furrows with the teeth of the dragon, and finally battles with the warriors who spring up from this magic sowing. Hanging from the tree is the object of the quest, the fabulous Golden Fleece. Diana appears, somewhat irrelevantly, with her milk-white hounds. At the upper left Medea employs herself in some sinister bit of enchantment while Jason looks on. The episode at the extreme left brings in the good ship Argo again, and shows the company, with Medea, about to embark for the return journey to Iolcus.*

*These incidents are interrelated and welded into a well-unified design. Consequently the result does not stress the episodic quality of the parts.*



PLATE 3



PLATE 4

PLATE 3

HAYMAKER'S DANCE

*William Sidney Mount*

LITHOGRAPH FROM THE PAINTING—1849

*The painter has caught a moment of relaxation among country workers of a century ago. Mount worked from reality, and traveled over the rural scene recording in voluminous sketch books the incidents and details of the daily life of humble and unknown people. Every touch is authentic. The artist then composed and re-composed these sketches, at leisure, building up his compositions with careful experimentation. If a cut of garment, an odd-shaped hat, a tool, catches the eye of the spectator, one can be sure it was in current use by just the kind of character who is associated with it in the painting. Such documentary paintings are of exceptional value as source material, if not necessarily masterpieces of painting or composition.*

PLATE 4

A TAP AT THE WINDOWS

*John Rogers*

PLASTER—1874

*Here is a typical "Rogers' Group." These plaster reproductions were made by the hundred from Rogers' original models, under his personal supervision. The meticulous inclusion of all details, the accuracy of modeling, and the technical perfection of each example are characteristic of the workmanship of the artist and of his era. The subject—a startled and embarrassed young man surprised in the midst of an ardent declaration, the coy and comparatively self-possessed maiden, the pair of kittens playing about the man's tall crowned hat, and the inanimate furnishings—shows the literary and sentimental bias of that day. It is a charming though literal presentation of an incident essentially trivial and homely.*



PLATE 5

# THE DOCTRINE OF SALVATION

*anonymous*

SCULPTURED TYMPANUM—CIRCA 1130

*From Narthex of the Abbey Church of Vézelay, France*

*This curious, obscure, and, to our eyes, peculiarly distorted piece of sculpture, is the over-panel in the middle door of the church entrance. It presents quite literally various biblical texts concerning Christ's message of salvation and its transmission by the Apostles throughout the world to all peoples. In the center is the dominant figure of Christ surrounded by a conventional glory. The Apostles stand on each side of the gigantic form of their Leader and Inspiration. They are next in size, as in spiritual importance. The recipients of the message are smaller still, yet among these, too, are gradations in size. Men who have already been converted to Christianity are shown close to the main figures, smaller than their teachers, the Apostles, to indicate that they are somewhat further removed from the source of salvation. But they are larger than the figures in the surrounding areas, where are shown the multitudes to whom the Word is to be brought.*

*Here is a composition with a strong triple purpose—for its own day. As Signal, as Symbol, the impact of this work was vital. Its service as Sign was also important for an illiterate people; it was a clear, concise translation of the biblical words into dynamic shapes. Its message as Sign may not come amiss, however, to our own day. As the sculptured crowds around the central figures show, the wonderful tidings are to be brought to everyone, even to the legendary creatures at the ends of the world. Among ordinary humans, too, the word is to be spread—among all classes of the feudal world, among the nobles, soldiers, priests, townsmen, farmers. On the outer edges of the composition are unfortunates afflicted in one way or another—the blind, the deaf, the mute, the lame, the insane.*

*This concept of tolerance and world-citizenship-in-Christ seems an odd thing to find emblazoned in a medieval church, for we have believed that the Middle Ages were the antithesis of the wide sympathies implied in this work of art.*



PLATE 6

## SKULL AND O'KEEFE'S HANDS

*Alfred Stieglitz*

PHOTOGRAPH—1930

*Here is a photograph which at first glance may seem almost as repellent as the Vézelay sculpture. We are not accustomed to skulls lying casually about, even animal skulls. But for the painter Georgia O'Keeffe this is a familiar, even a cherished, property, for in many a painting she has used it as a symbol of the vanished West. To one who knows her work there is nothing incongruous in the sight of her flexible sun-tanned hands on the bleached bone.*

*If, the title of the picture reminds one of the connection between O'Keeffe and skulls, the name of the photographer completes the explanation, for Alfred Stieglitz is husband to Georgia O'Keeffe an inspired and inspiring presenter of his wife's work.*

*When the circumstances are known, and the language of allusion understood, an otherwise strange art product may no longer be inexplicable, although it may be no more attractive than before. In other words its Signal becomes valid to us.*



PLATE 7

POSTER, SPANISH GOVERNMENT

*Jesus Lozano*

GOUACHE, LITHOGRAPH—CIRCA 1937

*Translated, its message reads, "Workmen: if you want it, the siege of Madrid will end in forty days. Work on the railroad." In graphic form is shown what the railroad will bring for the relief of the city—pork and beef, wine, vegetables and fruits, and manufactured goods, the essentials of supply. The childlike treatment of the train, the tracks, and the load, disregarding visual scale and perspective entirely, makes clear at a glance what a simple thing is needed. Just get the railroad running again!*

*This is almost pure Sign. To its persuasive message is added comparatively little illustration, and that, too, is in a similar jolly vein. The illustration is simple and childlike, although to us it may seem childish. The group addressed is evident.*



PLATE 8

## PONY EXPRESS

*Frank Mechau*

OIL PANEL—STUDY FOR MURAL—1935

*In this work we have a composition which possesses for us today the three-part purpose of Symbol, Signal, and Sign. The sketch for a mural, later executed in the Post Office Department Building in Washington, D.C., is enjoyable (as Symbol) even though one may know nothing of the dangers the riders of the pony express encountered, and may never have heard the names. Plunging horses, streaked clouds in a wide sky, and an empty land of broad distances are perennially fascinating in themselves. But to a person for whom its Signal and Sign are also valid, how much greater the enjoyment!*

*The little scenes below the main one remind us of terror and courage, Indian raids on corral and encampment, the defeat and scalping of a white rider, the triumphant start of the journey when the stage rattled into town and the mailsack was flung on the waiting saddle for the swift, lonely, and perilous transfer to its destination.*

*Even a generation that has never experienced the re-enactment of the conflict of stagecoach and redskin in the ingenious demonstrations presented by an aging but authentic Buffalo Bill himself—all headlong excitement, the yells of the Indians, pounding of hooves and crack of carbine-shots, the acrid smell of steaming horse flesh and burned powder, and that unforgettable moment of rescue as the cavalry galloped in behind their flag-bearer—even these unfortunates of the present generation who can only take their Old West through the comparatively cold medium of the movies can feel the thrill of the central panel, when the lead horse goes down and the redskins circle in for the kill.*

*When Symbol, Signal, and Sign are all valid, the work of art can come into its own with its potential audience.*



PLATE 9a



PLATE 9b

DR. MEYER-HERMAN (a)

*Otto Dix*

OIL ON WOOD—1926

TWO MEN (b)

*Joseph Hirsch*

OIL ON CANVAS—1937

*Contrasting treatments of the human figure are shown in these two paintings, both of which are satiric commentaries on the vagaries of people. In the first, the spherical subject, surrounded by spherical mechanical satellites, sits stolid and immovable, isolated against a shining sanitary wall. A few rectangular forms, along with the tiles of the wall, reconcile the curves to the rectangular shape of the picture.*

*In the second, the compositional scheme of interrelated saw-teeth reinforces the tension of argument in the subject and echoes the nervous elongations and distortions of the two figures.*

*Both paintings are presented with some sympathy for human peculiarities, although the first is the more impersonal, the painter being a rather uninvolved bystander and observer. Signal and Symbol are stronger in the work by Hirsch.*

*The painting, "Two Men," was exhibited, along with 499 others, in a show called "Modern Masters," at the Museum of Modern Art during the New York World's Fair in 1939. Popular votes were cast throughout the time the Fair was open, and in the balloting this composition consistently took highest place. This is really surprising in view of the non-realistic nature of its treatment, its provocative distortion, and the controversial nature of the subject itself.*



PLATE 10a



PLATE 10b

PICADOR (a)

*Pablo Gargallo*

WROUGHT IRON—1928

*In a witty shorthand manner the wrought iron suits the Picador. The metal is slit, bent, twisted, coiled, to give from sheet-like open sections a suggestion of a solid three-dimensional form. The eyes, for example, are actually small tabs which are folded down from the inner edge of the suspended hat brim. This form exists only in the mind of the observer; the actual object is almost entirely open space.*

HEN (b)

*William Zorach*

MARBLE—1938

*The weighty simplicity of the Hen is natural to an unyielding material like stone. It is not without its own subtle transitions of form within the larger mass, however, and it, too, is supremely expressive of character.*

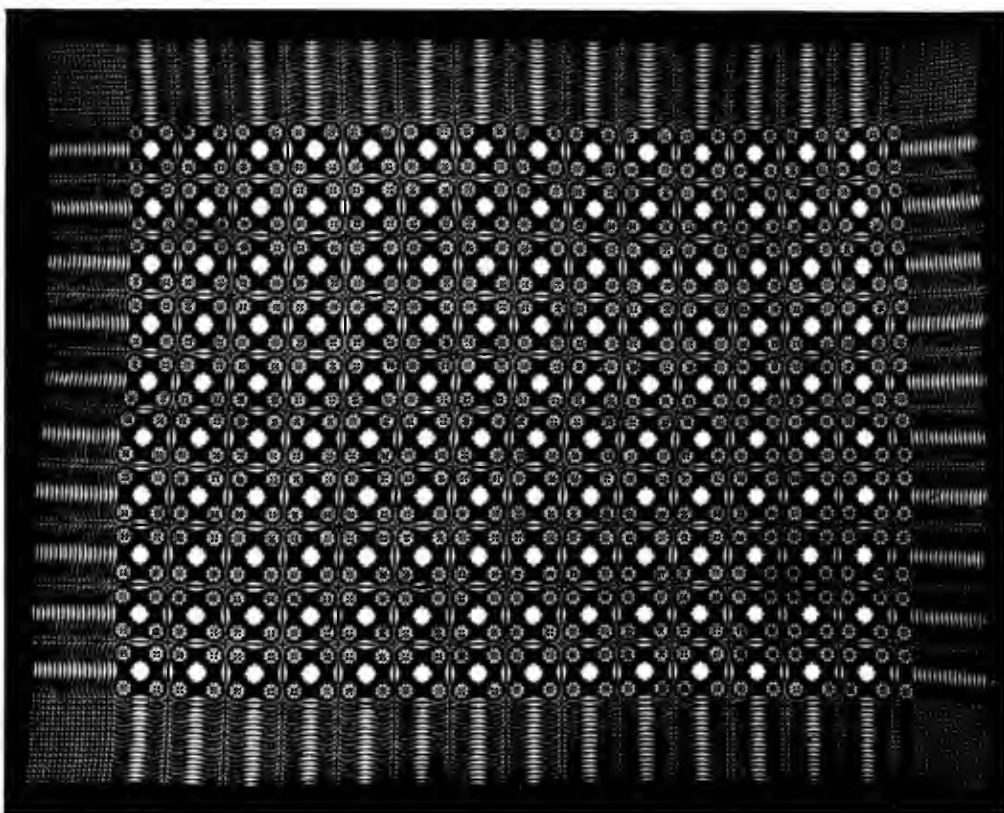


PLATE 11b



PLATE 11a

# BABY IN RED HIGH CHAIR (a)

*artist unknown*

OIL ON CANVAS—CIRCA 1790

*Early American Folk Art*

*The picture of the infant blissfully asleep is one of those quaint compositions by comparatively untutored artists that turn up now and again in some forgotten attic. The painter probably earned his living by house-and-barn painting, or even in a more irrelevant way. Signs in country lanes as late as the 1920's attested to the versatility of men who could qualify as "Portrait Painter and Artesian Well Borer," to quote a sign actually seen. But their hearts were obviously in their hobby of painting people. In this example the nearly correct perspective of the chair and the daring foreshortening of the child's legs show that the painter knew pretty well what he was doing. In many cases these men have recorded the dress and surroundings of the sitter better than the sitter's person. This delightful baby fortunately lacks the formidable ugliness achieved in the portraits of many itinerant artists of that day.*

# COVERLET (b)

*anonymous*

EARLY 19TH CENT.

*Natural Cotton or Linen Warp, Indigo Dyed Wool Weft  
American Folk Textile*

*A widespread type of American folk art is represented in the second illustration. The origin of these coverlets is still disputed: some say Ireland and Scotland in the eighteenth century, others the Scandinavian countries. In any case, coverlets of this type were in use in the outlying districts of New England and in the Appalachian mountain country from early years, and are like an indigenous folk art.*



PLATE 12a

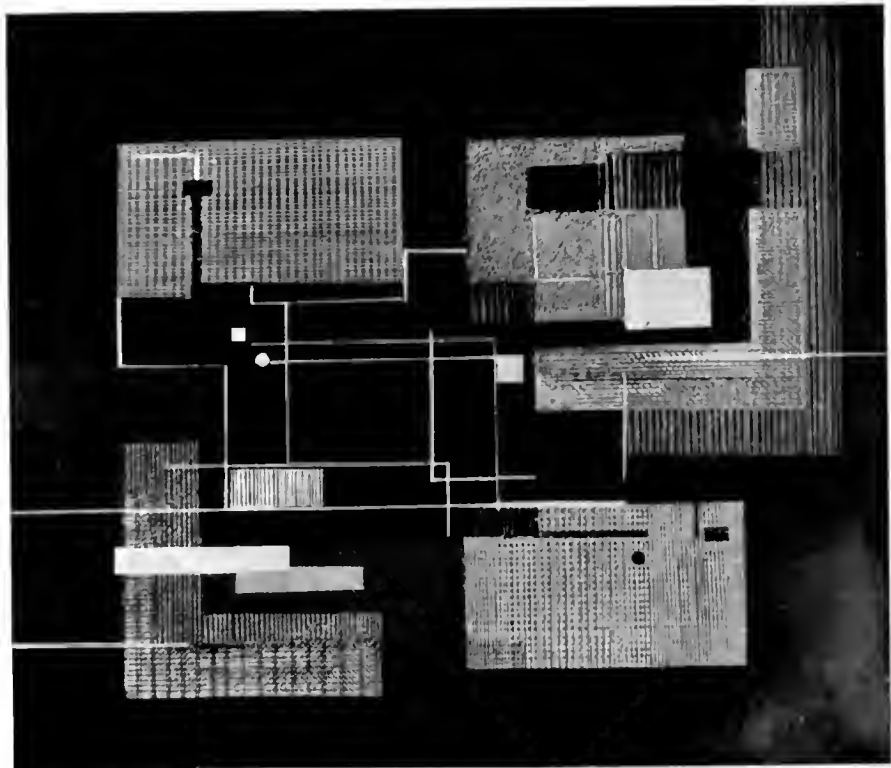


PLATE 12b

## FURNITURE (a)

*Emrich Nicholson and Douglas Maier*

NATURAL BIRCH—CIRCA 1940

*Fabrics by Marli Ehrman*

*These simple pieces, suited to the informality and ease of upkeep demanded by modern living, depend on the beauty of the natural wood rather than on hand-carved detail and other elaborate processes of handworkmanship. The shape of arms and seats are produced by steam-bending. The whole construction is economical of material and process. The mattress-type layer of foam rubber upholstery is perhaps more comfortable than furniture mass that depends on springs and webbing and padding. The shapes are designed for specific versions of chair-sitting—lounging, or erect reading and conversation. The fabrics are also unpretentious, made to blend with the wood tones, and by their texture give variation and interest without being obtrusive.*

## WHITE LINES (b)

*Rice Pereira*

OIL ON VELLUM—1942

*This elaborately integrated composition employs a variety of actual textures as well as textural effects implied by visual means alone. The rectangular shapes and the varied tones are held together by a carefully calculated network of white lines. Two small circular spots are the only variation from the rectilinear. Such wholly abstract art products have arisen in protest to the ultra-pictorial preferences of the last century. The artist deliberately avoids the appeal of subject matter, throwing away the functions of Sign and Signal. He leaves only the intellectual appeal to order and subtle relationships of shapes, tones, and (sometimes) colors. To many people the resulting Symbol has little appeal. To others, perhaps surfeited with overmuch subject matter, there is a mathematical, a scientific, charm in these works.*



PLATE 13

A GOD OF WAR SHOOTING ARROWS  
TO PROTECT THE PEOPLE

*Jeane Hoisington (age 11)*

COLORED CHALK—1936

*In this typically personalized work the child artist embodies a long and involved story. The child's direct transcription of his idea into visual form is condensed and strong in impact. A translation into words would necessarily be more diffuse.*

*There are no standards to guide an observer's verbal interpretation of a work of this sort, but the effect clearly indicates the broad outlines of the artist's concept.*



PLATE 14

THE GUBBIO ROOM—  
THE STUDY OF THE DUKE OF URBINO

15TH CENT.

*The Gubbio room has been re-erected in its entirety in the museum. The walls and the ceiling are made from carefully chosen pieces of inlaid woods. The intarsia of the walls represent a series of constructed cupboards, some with their doors open to show the contents. The ceiling is apparently constructed of deep coffered sections with geometric interlacing of the beams. A continuous bench is shown around the little room. On the shelves of the cupboards are musical instruments, scientific apparatus, a bird in its cage, flasks of wine and plates of food, hawking paraphernalia, all in reference to the interests of the ingenious art patron for whose use the study was constructed. All this is pure illusion, since everything is done in skillfully-contrived perspective to appear three-dimensional. In reality the walls are perfectly flat; there are no actual cupboards, let alone anything in them. There is one clue which gives away the tricks of perspective. Note the discrepancy between the actual plane of the wall beneath the window and the implied projection of the adjacent bench. The whole is a virtuoso exercise in Renaissance perspective.*



PLATE 15



PLATE 16

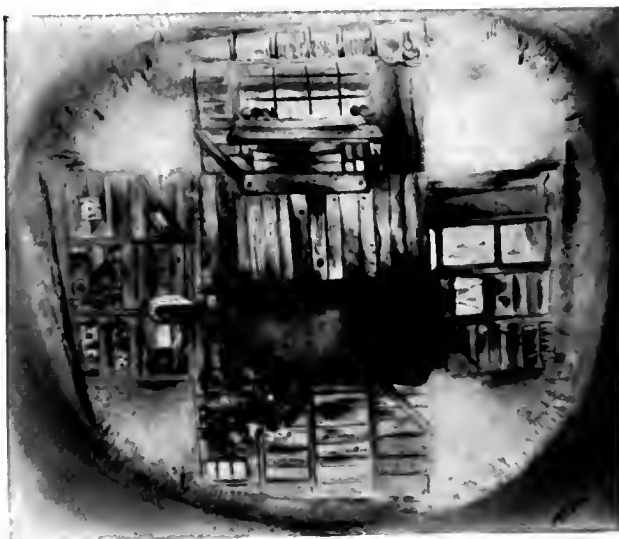


PLATE 17

PLATE 15

AN AMERICAN LANDSCAPE

*Charles Sheeler*

OIL—1930

*The smooth-surfaced masses that make up this carefully composed scene obey the laws of Renaissance vanishing-point perspective. Out of what appears at first glance to be a transcription of visual facts, the artist builds the shining precision and impersonal power of the machine-dominated world of industry.*

PLATE 16

STAIRS, PROVINCETOWN

*Charles Demuth*

WATER COLOR—1920

*An intentional distortion of what might have been a literal vanishing-point perspective turns this slight work into a personal comment on all rickety stairs.*

PLATE 17

THE SHACK

*Loren MacIver*

OIL—1934

*This highly sophisticated version of a diagrammatic drawing—plan with elevations—recalls the Egyptian all-at-one-view perspectives. The mind of the observer must pull the simultaneous presentation of the facts about each wall and the floor of the hut into a single three-dimensional concept of the interior. An amusing tour de force.*



PLATE 18

PLATE 19



PLATE 18

RESIDENCE OF DAVID TWINING

*Edward Hicks*

OIL—1787

*The obliging artist has inventoried for his patron a Noah's ark-ish array of his personal possessions, including assorted relatives, servants, and livestock. In naïve and uncoordinated perspective the buildings are drawn from several points of view at the same time.*

*The painter was aware of traditional perspective and its laws but didn't quite know how to execute them. Nevertheless, the work has a quaint charm all its own, to which the mistakes in drawing may, perhaps, add.*

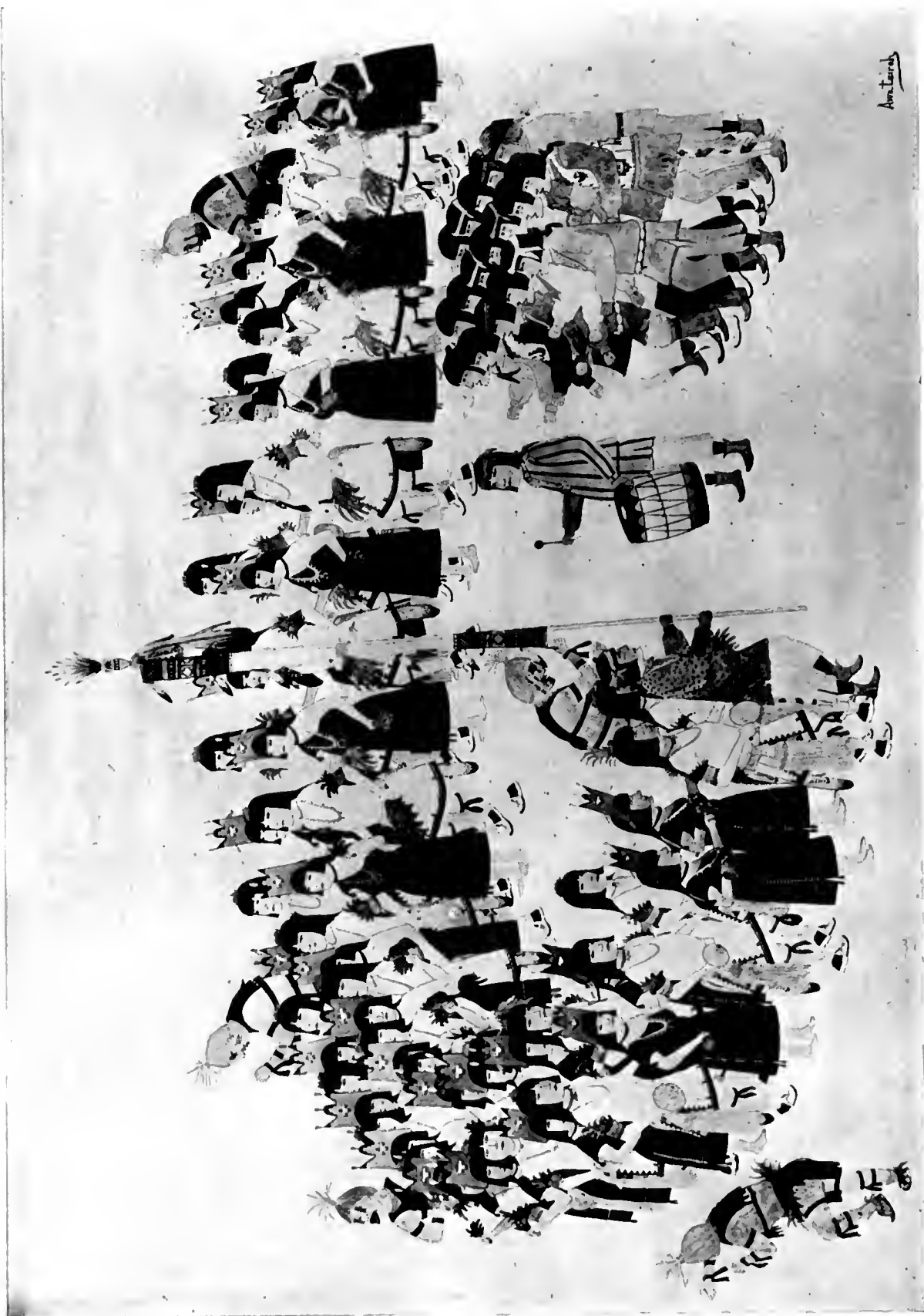
PLATE 19

THROUGH COLEMAN HOLLOW  
UP THE ALLEGHENY VALLEY

*John Kane*

OIL—CIRCA 1926

*An untutored artist, an American primitive, Kane shows, with child-like absorption in details, an impossibly clear-cut distance and a delightful disregard for the relative sizes of things. He makes up his own rules for drawing as he happens to need them, and then disregards them at will.*



Am. T. 20

GREEN CORN CEREMONY

*Awa Tsireh*

GOUACHE—CIRCA 1922

*Here is a record of an Indian dance ceremony, done by an artist of the tribe. The effect of processional circling, the massed ranks of participants, are almost hypnotic in their suggestion—by the simplest means—of continuing movement.*

*This Hopi painter overemphasizes the heads of the figures, as do most primitive peoples. (Child artists tend to do this, too.) He has devised his own system for drawing figures crowded one behind the other, and although this is not according to Renaissance laws, it achieves its effect.*

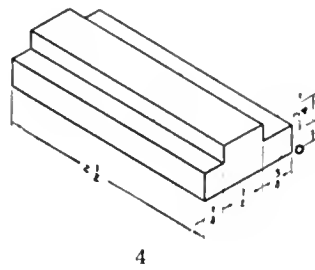
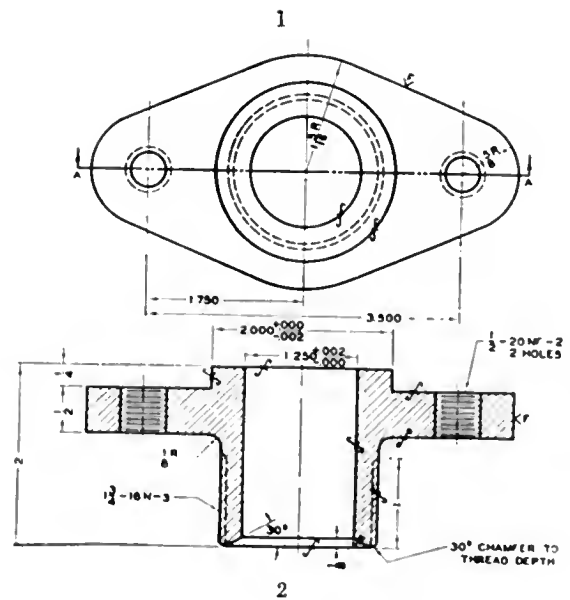


PLATE 21b



## PLAN AND ELEVATIONS WITH ISOMETRIC PERSPECTIVE VIEW (a)

COUNTER CLAMP BAR—1944

*This diagrammatic presentation of constructional facts pertaining to a counter clamp bar shows in (1) a top view; in (2) the long side; and in (3) the end view. No heights appear in (1); no thickness in (2); and no length in (3). In order to assist the three-dimensional concept views (1), (2), and (3) are combined in (4) in the kind of perspective called isometric. This type does not permit foreshortening or convergence to vanishing points. The object is drawn as it is constructed rather than as it is seen. Consequently, all measurements shown in (2) and (3) can also be measured directly on (4). (In vanishing point perspective measurements into distance must be calculated.)*

## X-RAY VIEW (b)

STUFFING BOX

*(1) shows in solid lines the top view of the shapes comprising the small metal object. In dotted lines appear the circular dimensions of structures concealed beneath the projecting flange. Thus, in a sense, (1) presents simultaneously the size-facts about the top and bottom surfaces of this object. No heights are shown.*

*(2) offers a cross-section of the object, distinguishing between hollow and solid mass. The two holes in the flange have horizontal lines to indicate that they are threaded to receive screws. The lower surface of the cylinder is beveled up inside and chamfered off on the outside so that it rests on only a thin ring rather than the full thickness of the hollow form. All this is shown by the various lines and numbers on the drawing. (2) represents heights and lengths only.*

*These plates are pure Sign.*

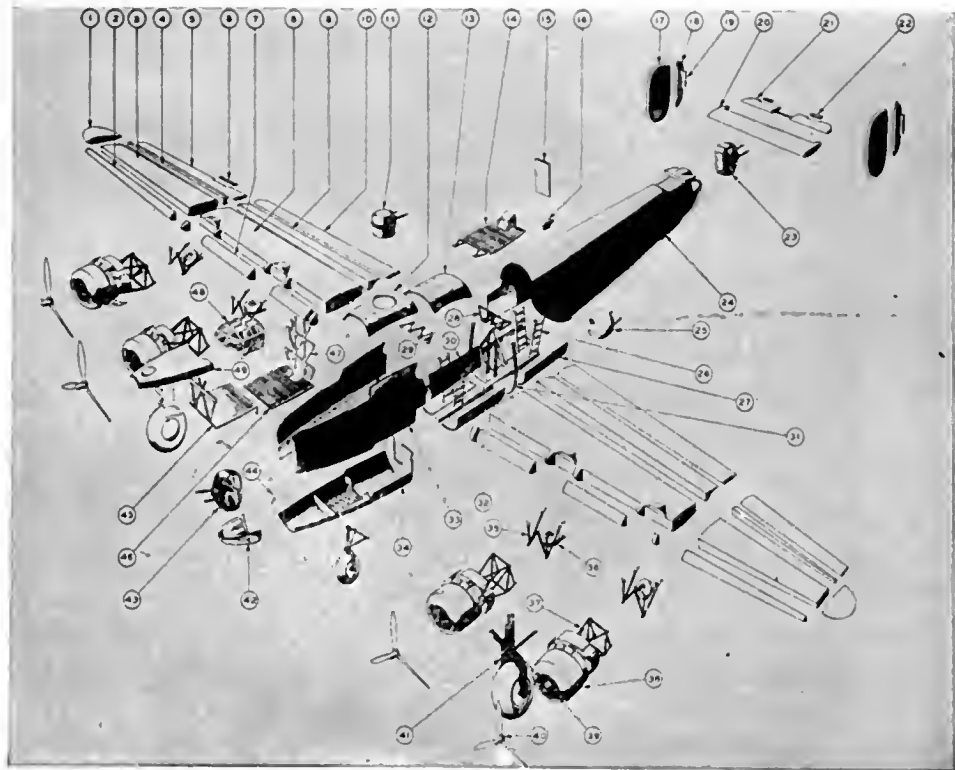


PLATE 22

## EXPLODED VIEW OF B-24 LIBERATOR

1944

*Using certain of the devices of vanishing-point perspective, the artist opens out the component sections of each part of the plane. At no time during the making of the plane would these relationships appear, nor would the workman ever see the actual objects like this. The purpose of the designer in making such a drawing is to show more clearly the way the parts relate to the whole. Similarly, exploded views of each of these units aid the workers in making and assembling them.*

*The three-dimensional concept is basic to this type of drawing.*

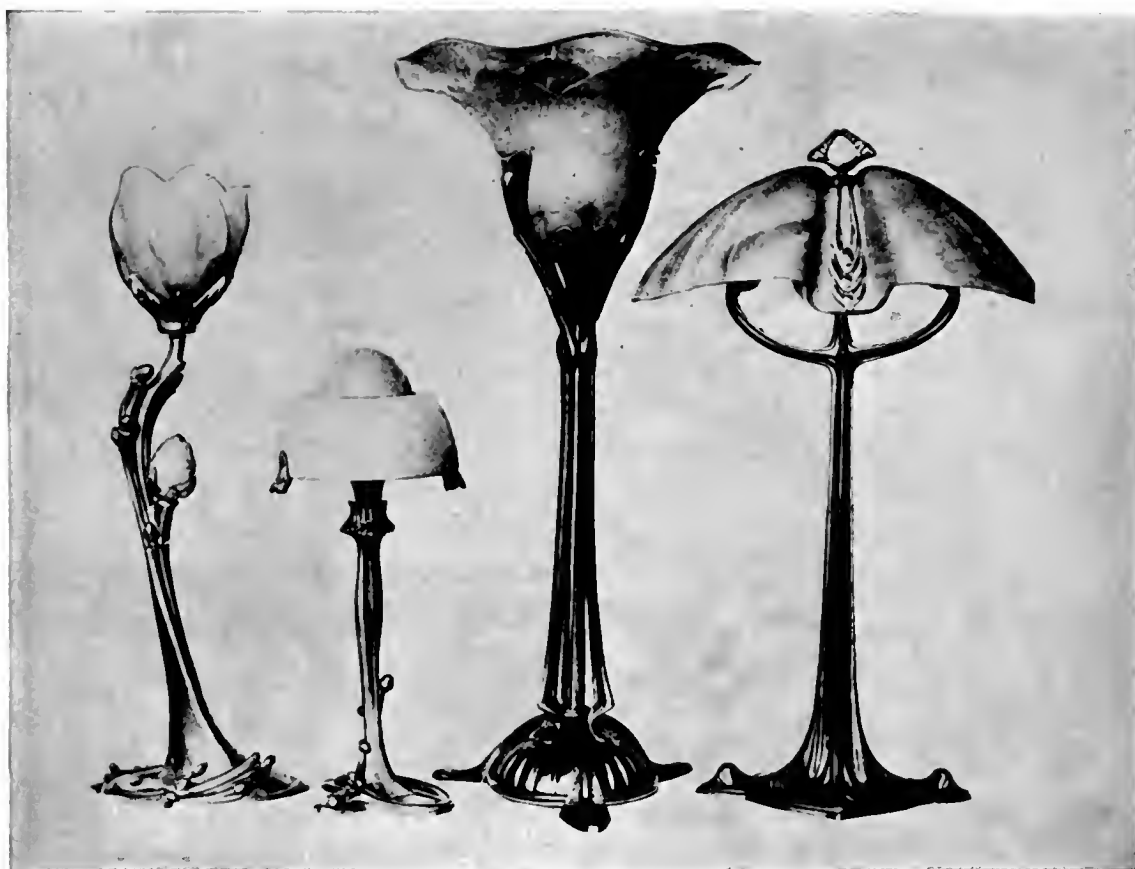


PLATE 23a



PLATE 23b

## ELECTRIC LAMPS (a)

*Louis Majorelle*

BRONZE, WROUGHT IRON, GLASS—1904

*The four lamps possess the sinuous lines and suggestion of writhing growth characteristic of the style of design called Art Nouveau. A self-conscious attempt by designers to find a wholly new and unprecedented kind of ornament resulted in these distortions of the principles of growth. Eventually it was carried so far that all the objects in a room bore this twisting form; even furniture supports degenerated into an appearance of sponginess. The lush decadence of the style soon overpowered itself, however, and in reaction severe geometric blockiness became the basis for the household design of the 1920's and 1930's. One looks in vain on these French lamps for any hint of how to turn them on or off; their translucent shades bring a glowing spot of light into the room, but neither concentrate it for needed special use, nor temper the glare at eye level. All four lamps are top-heavy. They all have odd projections and sharp bits to catch on things. The four are definitely non-functional.*

## GOOSENECK LAMP (b)

*Russel Wright*

CHROMIUM-PLATED METAL—1934

*Russel Wright's simple metal lamp directs its light to the exact place where it is needed by means of the flexible-in-all-directions construction of the mid-section of its support. The deep shade shields the bulb, thus preventing glare and spotlighting the area on which the lamp is focused. The base is broad and heavy enough to hold the light securely in any position. No attempt is made to disregard the necessary wiring-cord or conceal the switch.*

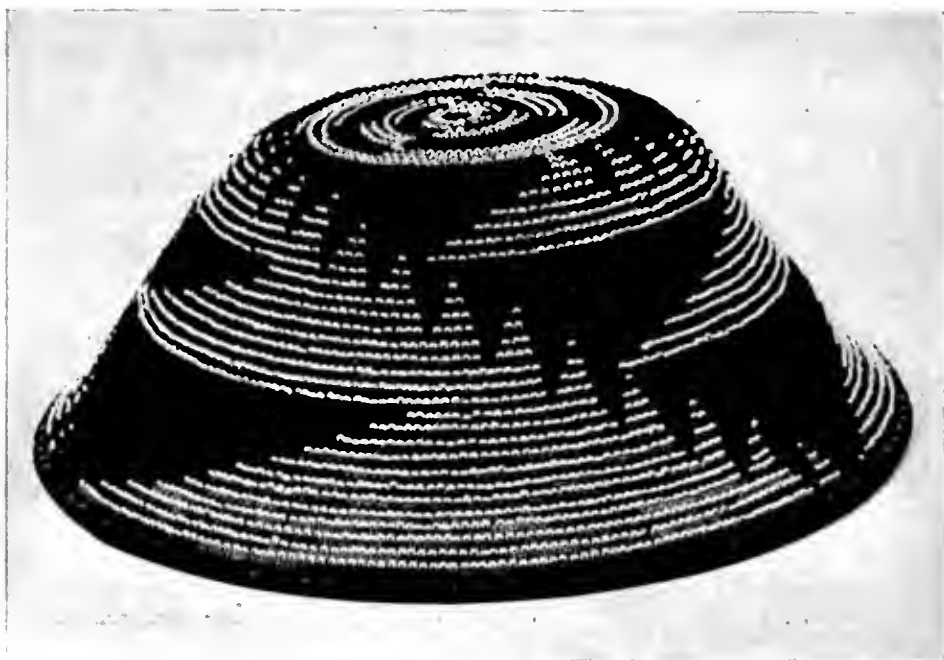


PLATE 24a



PLATE 24b



PLATE 24c

# BASKET (a)

*Pomo Indians, California*

19TH OR 20TH CENT.

*Woven of Natural Fiber Beaded with White and Black Beads*

# BLANKET (detail) (b)

*Salish Indians, British Columbia*

*Dog Hair and Mountain Goat Wool*

# CLOTH SKIRT (c)

*Chucunague group, Kuna Indians, Panama*

*Cotton Cloth, Applique and Inlay*

*In the design on the basket, the sharp contrasts of color and shape, the swinging development of the rhythmic progression outward and upward from the center point, could never have been achieved as an elevation on design paper, in the manner of our conventional art schools. Only in the free mind of savage or civilized man, contemplating the imagined hollow form as a whole, could these relationships have been devised.*

*The corner of the Salish blanket, in many muted tones, has in small size the triangles easy to achieve in weaving. Notice how, by splitting the mound-shapes into a right and left half by paired values, a suggestion is given of in-and-out movement, a hint of the three-dimensional. A quite different process is illustrated in the Kuna skirt. On a base of red cotton cloth (the black in the photograph) patches of lemon yellow (the lightest color in the photograph) are applied as the start of the design. These are further cut out to reveal a chain of pumpkin-colored fabric (the grayish tone), and this is cut out, in its turn, to show in its central area the red foundation again. A few spots of the pumpkin color are added as accent to these inner areas of the red.*

*Unsymmetrical, on a basis of symmetry, there is a curious fascination in the repetitive theme of the design, the restless layer-on-layer of color and shape.*



PLATE 25a



PLATE 25b

MINER'S COMPASS (a)

*Short and Mason; Taylor Instrument Companies*

GLASS AND METAL—CIRCA 1930

NEEDLE BOX (b)

*Polar Ware Company*

RUSTLESS STEEL

*These two small, technically useful objects are of exquisite precision and elegant in form and finish. Few items obtainable for consumer use can compare with such articles, either in beauty or in perfect adaptation to their intended use. Here, in small, is a triumph of the machine age.*



PLATE 26



PLATE 27

PLATE 26

WOODEN PLATE, MEXICAN GLASSWARE  
AND POTTERY PLATE, POTTERY

CIRCA 1937

*The larger plate standing erect at the right makes the most of the natural grain of its dark wood. Contrast the casual irregularity of the Mexican pottery plate in the center with either the wooden plate to its right or the Pacific Pottery plate at the left. The bowls are more fine in material and shape than either of the pottery plates, as well as more perfect in their glazing.*

*The tall glasses with handles are typical of a folk industry now built up to considerable volume. The coloring of these Mexican pieces is rich or delicate, the shapes nearly enough alike to suit our American taste for matching sets, yet they keep the slight irregularity of hand work.*

PLATE 27

SKILLET AND COVERED POT

*Redwing Potteries*

DOUBLE BOILER

*Joaquin Pottery*

SQUARE BAKING PAN (paper)

*Keyes Fibre Co.*

1942

*The Redwing cooking dishes are of terra cotta pottery, glazed inside with glossy brown. The double boiler is a crystalline off-white pottery. The paper baking dishes are thrown away after use.*

*These are all simple and functional, good-looking, useful in their own right and not merely substitutes for metal utensils.*

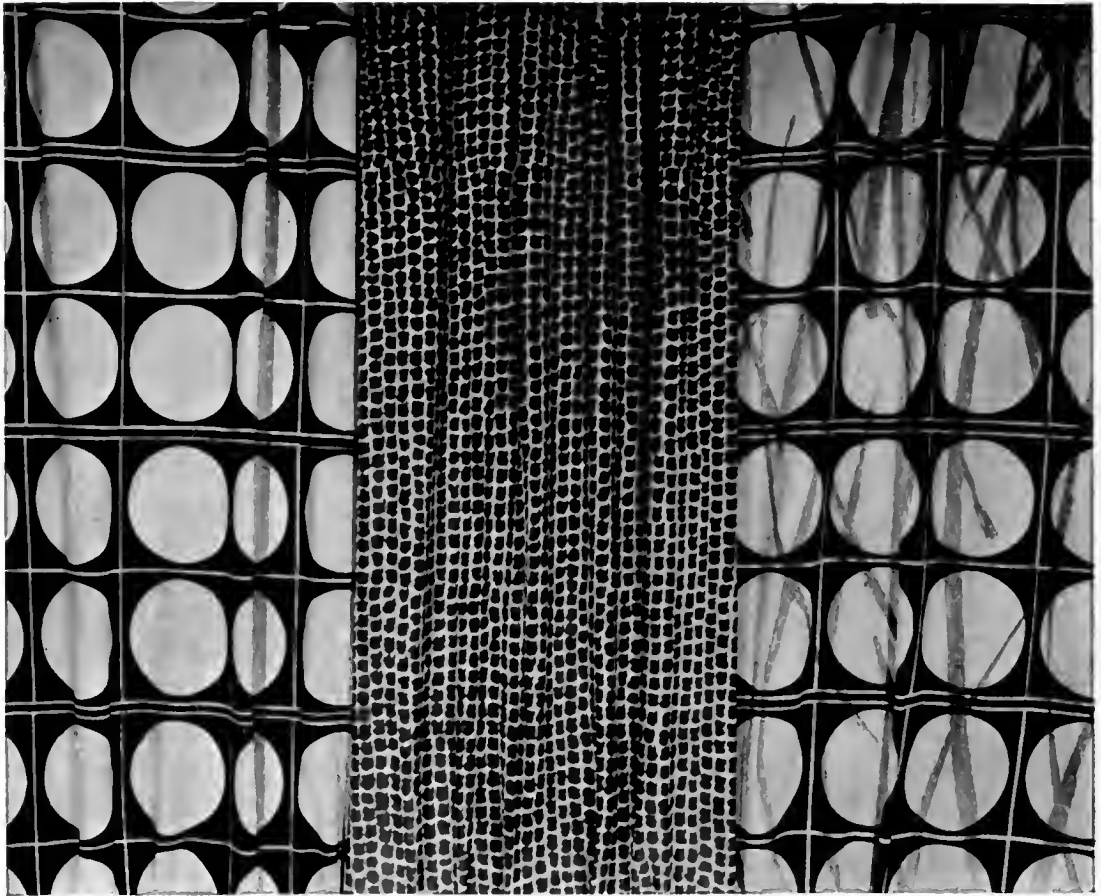


PLATE 28

## TEXTILES

*Antonin Raymond*

SILK-SCREEN PRINTED COTTON—CIRCA 1940

*These strikingly designed fabrics come in a number of colorings. They are suitable for upholstery and draperies in unpretentious modern rooms. The larger design is perhaps too strong to appear in quantity in a small area, but it makes a handsome and masculine effect in the right place. Notice how the double cross-line set horizontally between every pair of circle-rows overcomes the monotony of the exact repetition of the simple circular disks. The brush-daub print gives a useful broken surface, evenly but not mechanically repetitious, and is practical as well as decorative for much used upholstered areas. It is small enough in scale to fit in almost anywhere.*



PLATE 29a



PLATE 29b

UNIT FURNITURE (a)

*Saarinen and Eames*

RATTAN CHAIRS (b)

*Roman Fresnado, Montevideo, Uruguay*

CIRCA 1940

*The interchangeable square units of the Saarinen and Eames cases fit onto bases which come in sizes to take two or three of the units. The benches for flowers, magazines, or extra seating, such as the one at the right, are these same base units. The chairs are from a series in molded plywood, covered with a thin layer of foam rubber over which the upholstery fabric is fitted. The construction is of the simplest, yet durable and comfortable.*

*The rattan chairs are cantilevered to add spring and ease in sitting. Arms are attached to the seats by leather slings which have added give. These are not constructed by a mass-production system, yet they have sophistication and lack the quaintness of peasant furniture.*

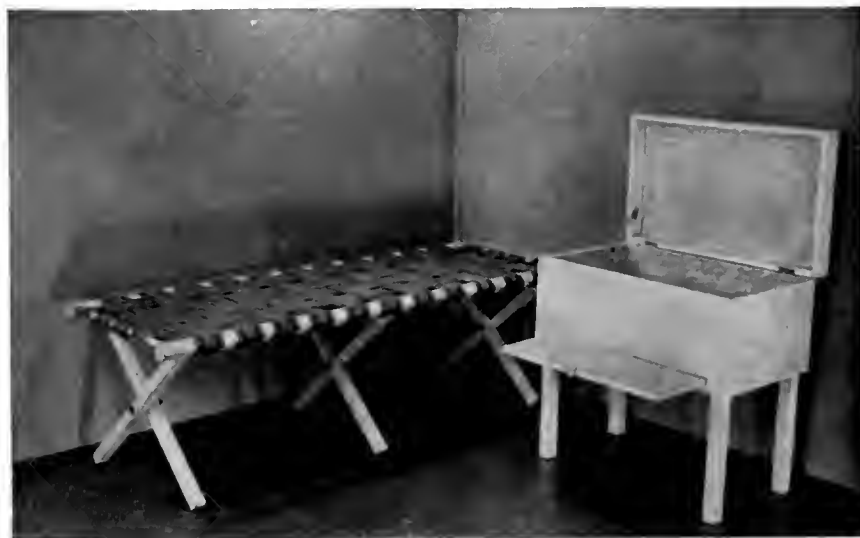


PLATE 30

## PEASANT FURNITURE

*Xavier Guerrero, Mexico City*

PINE, WITH IXTLE FIBER WEBBING—CIRCA 1940

*The folding cot in the upper picture has interlaced webbing of ixtle, a native fiber. The chest includes a pull-slide to provide a shelf on which to put things taken out of the storage-well. Construction is simple, yet adequately strong.*

*The table and straight chairs are of the same wood and webbing. The hanging cupboard has one compartment, screened with a sort of mesh of native fiber, in which food can be kept free from flying insects. The other compartment has doors which are opened by a rope loop as handle. On the floor is matting. Everything is easy to keep up, unpretentious, yet homelike.*



PLATE 31a



PLATE 31b



PLATE 31c

**CARVED WOODEN DISH (a)**

*Tsimshian Indians, British Columbia*

19TH CENT. OR EARLIER

*(Representing a Raven-like Bird, with Various Figures)*

**STONE BOWL (b)**

*Prehistoric Indians, Moundville, Alabama*

*(Representing a Crested Wood Duck)*

**WOODEN CEREMONIAL HAT (c)**

*Haida Indians, British Columbia*

*(Crested in Form of Fantastic Animal)*

*These three objects from different Indian cultures of North America display a characteristically powerful simplification of natural forms, and a mastery of material and tools. The over-all height of the stone bowl, for example, is less than a foot, yet with only non-metal tools the makers worked it smoothly down to about a three-eighths-inch thickness.*

*The lay public thinks of American Indian art in terms of totem poles, Navajo blankets and turquoise jewelry, or Cherokee beadwork—types still made by our Indian contemporaries. Work of such tribes as produced (a) and (c) above is equally characteristic: their design inheritance goes back uninterruptedly for centuries. The makers of (b) disappeared before Columbus' time, leaving no trace but the objects of their superb workmanship.*



PLATE 32a



PLATE 32b



PLATE 32c

## MASK FOR MOURNING CEREMONY (a)

*New Ireland*

WOOD AND FIBERS—19TH OR 20TH CENT.

*(Representing the Deceased)*

*Masks like these were developed as a substitute for the previous custom that required the male relatives of the deceased to grow their own hair for this elaborate arrangement. The sides of the skull were shaved and rubbed with lime; the long, long hair on the top was dyed yellow. This traditional coiffure, now part of the wooden mask, allows the men to retain their usual hair dress. When not in use these masks and other ceremonial carvings are kept in a special building, which women and children are not allowed to approach.*

## LIME SPATULA (b)

*Eastern New Guinea*

OILED WOOD

*The spatula is used to dip small quantities of lime from decorative containers carried on the person. The lime is chewed, along with betel nut, and the combination stains the mouth and lips of the natives a blood red. The chewing of the betel nut and lime has been likened to a combination of our American gum chewing and cigarette smoking as a social custom.*

## COWRIE SHELL MASK (c)

*West Africa*

*The arrangement of the natural materials and the decorative shapes of this mask are extremely sophisticated. So also are the spacing, color, contrast in sizes of shells, relief of the texture of the glossy shells against the soft darker tone of the leather upon which they are mounted. The shells when arranged horizontally or vertically provide interesting contrast to those on the diagonal lines.*



PLATE 33

## EMBROIDERED SCARF

*Roumania*

LINEN—19TH CENT.

(Detail: Border and Section of the Field)

*Here is a very effective arrangement of simple geometric motifs, separated by different sized borders. The narrow border immediately below the field is a transitional element, leading into the surface pattern by combining the main rhythmic movements of the borders below and the field above. The stitch employed is back-stitch, which is usually arranged to correspond with the mesh of the linen ground. Flat threads which look like straw, and metal threads, are used sparingly as accent; these are added in chain stitch along the borders, in a plaited stitch between motifs in the wider borders, and in satin stitch to center certain of the smaller motifs.*

*The spacing and arrangement of the component parts of this design seem particularly satisfying. The ingenious ways in which slight variations are made to relieve the regular repetitions of motif, the manner in which the border leads into the field, are especially fine.*



PLATE 34a



PLATE 34b

## EMBROIDERED BAND (a)

*Russia*

LINEN—19TH CENT.

*Grotesque heraldic beasts alternate with flowering trees on which small birds perch. Other small birds flit through the open spaces. The narrow borders are mainly geometric in detail. Above the upper border run conventionalized suggestions of women's figures with triple-crested headdresses. This Russian piece is in the characteristic cross-stitch, following the mesh of the linen ground.*

## ECCLESIASTICAL PANEL (b)

*Denmark*

WOOL—19TH CENT.

*The Danish panel is more naïve in spirit, and does not have the strict repetition of the Russian embroidery. There is a round central medallion, sacred initials, the date of making (1816), and, radiating inward from each corner, an urn-shaped object from which gigantic floral forms spring. The ground is well covered; the more or less symmetrical devices all focus inward from the corners toward the medallion. It is further enlivened with a sprinkling of tiny starlike motifs. Many stitches are used, including chain, herringbone, long-and-short, feather-stitching, and a number of grouped stitches. Twisted threads of the wool, in a sequence of colors, form a fringe all around the panel. The whole is gay and charming and unself-conscious.*



PLATE 35a



PLATE 35b



PLATE 35c



PLATE 35d

RUSH BROOM, AMERICA (a)

WOOD AND BROOM STRAW—EARLY 19TH CENT.

TANKARD, AMERICA (b)

WOOD AND WITHY—18TH CENT.

CHURN, AMERICA (c)

WOOD AND WITHY—18TH CENT.

DOORMAT AND GROCERY CARRIER (d)

*Leipsig Lippe, Inc.*

CORNHUSK

*Distributed by Mary Rodney*

SPLINTS AND WOOD—1941

*The folk objects of an earlier day, which were made from abundant natural materials by simple hand processes, are by no means unrelated to certain crafts still persisting in the midst of the machine age. Today's splint-woven carrier, although made in quantity, is still a one-person craft product from start to finish, as is also the husk mat. These are processes that have never been entirely abandoned in America, although they survive only in outlying districts.*



PLATE 36

EQUESTRIAN EQUIPAGE  
AND KNIGHT'S ARMOR

*Court of Francis I, France*

EARLY 16TH CENT.

*The intricate detail of the armor for both the man and his steed is eminently suited to the whole atmosphere of its time. Compare this with the costumes in the contemporary Flemish tapestry of the following plate. The armor, French in origin, is, of course, the more spirited example. The classic scrolls which are engraved and inlaid in metal on its surface recall the Italian inspiration of this era of the High Renaissance in France.*

*These objects, and others of similar type from varied epochs and national groups, are treasured in museums throughout the world. They are part of the world's heritage of beauty. The forms nowadays have few surviving counterparts: they serve no appropriate purpose today. But as evidence of past ways of life and milestones on the highway of art history, they still have value for us.*



PLATE 37

## A HAWKING PARTY

*Brussels, Flanders*

WOOL TAPESTRY—EARLY 16TH CENT.

*It is unusual to find a tapestry of this early date so well preserved. As a rule, in addition to the moth and time itself, fire, flood, and sword have wrought havoc of one sort or another and left a hanging minus a corner, torn, faded; and threadbare, at the very least. This one seems as fresh as the day it was first hung against the stone wall of a castle or a civic building.*

*The people depicted here are better looking than usual. In Flemish work especially, it often seems as if every dour-faced man and crabbed lady in the country has been perpetuated by the artists, and one wonders if the fog and chill rain of Flanders got into the disposition of all its early inhabitants. In contrast is Italy, where almost everyone in the paintings looks excitingly handsome and charming, or at least good-tempered.*

*Tapestry-making is a slow and intricate process involving hundreds of shuttles, each carrying one color tone of wool. The successive colors in any one row of the weaving are interlocked at the end of each color area with the next color which appears in that row, and the shuttle for that color is laid aside to wait its turn on the return row of the weave. The work is done from a drawing called the "cartoon." The interlocking of the color-threads and the strong vertical ridges caused by the warp threads into which the colored wefts are twined, give the particularly bold-scale characteristic of the tapestry surface. Such elaborate crafts of the past are priceless museum acquisitions, recalling the workmanship as well as customs of the past.*

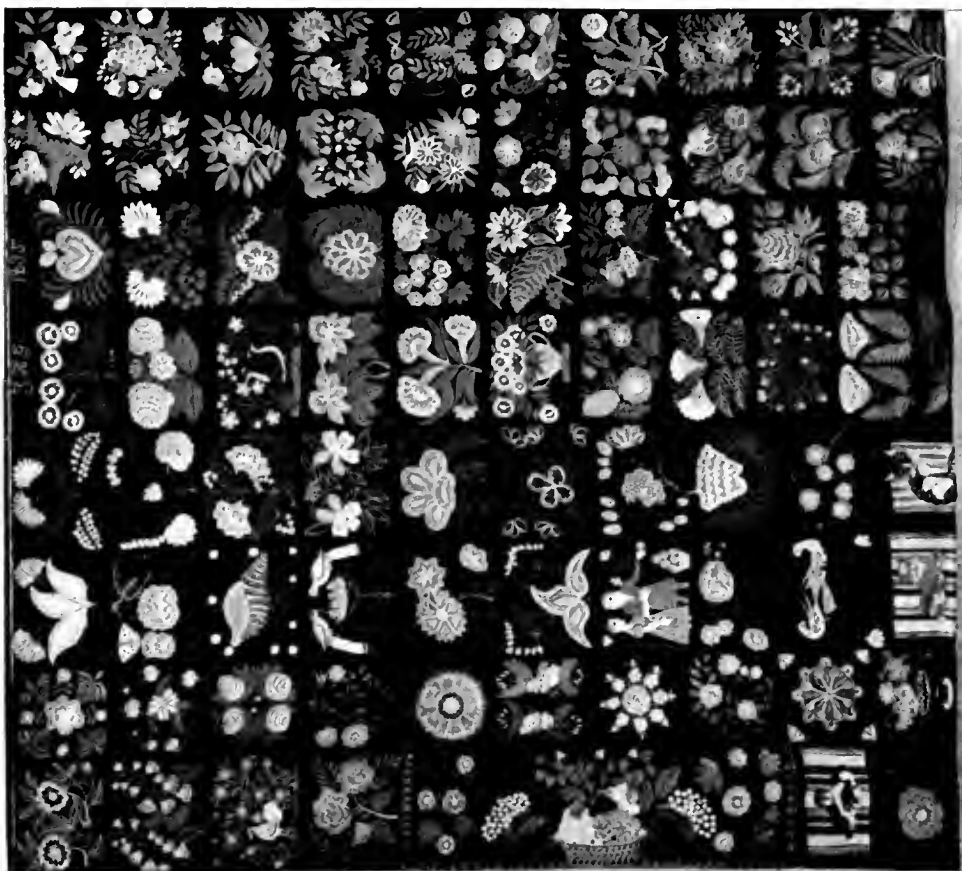


PLATE 38b

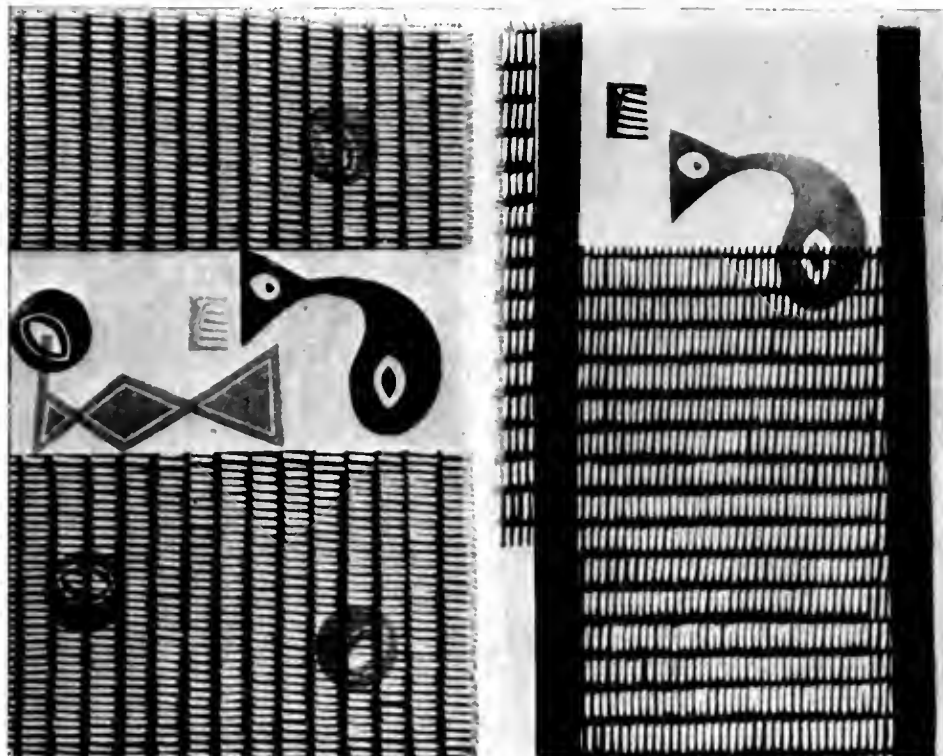


PLATE 38a

## BLOCK PRINTED TEXTILE (a)

*Ilse Hamaan, San Diego, California*

COTTON FABRIC—1943

*These place mats are printed in gray and red on a cream-colored fabric. The prints are assembled by freehand superimposition of several separate blocks, with some over-printing. This gives a casual quality to the whole, as does also the unmechanical distortion of the circular forms and triangle-pyramid motif. The network section shows clearly the shape of the successive rows of gouge strokes. Thus the fabric tone shows between the red which is printed by the remainder of the block's surface.*

## CARPET (b)

*Zeruah Guernsey, Vermont*

COLORED YARN EMBROIDERY ON WOOLEN FABRIC—1835

*Using the universally popular chain stitch, the maker of this piece of folk art undertook an ambitious project which she carried through to an effective finish. She must have had fun doing it, and one hopes she enjoyed using it for many years. Such items of folk art always tempt one to conjecture about the maker and the circumstances of their origin.*



PLATE 39a

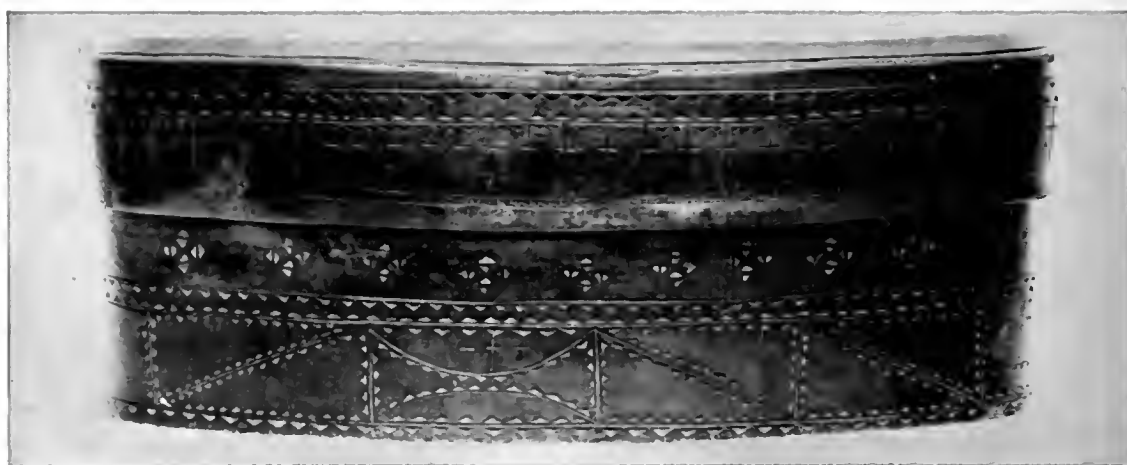


PLATE 39b

DOWER CHEST (a)

*anonymous maker*

PAINTED PINE—1784

*This gaily painted chest accompanied some country bride to the new home she was to establish. It carried her household linens and perhaps her spare gowns, and was a useful piece of furniture as well, serving as extra seats or a table when needed.*

WOODEN BOX WITH LID (b)

*Penobscot Indians, Maine*

CHIP-CARVED—19TH CENT. OR EARLIER

*Here one can only guess at the intended use for this box. Perhaps it held ceremonial regalia. At any rate, hours of work were lavished on its construction and decoration by its Indian maker.*



PLATE 40

CORAL SEA

*Marguerite Zorach*

HOOKED RUG, WOOL—CIRCA 1940

*The softness of the texture in this hooked panel enhances the subject and the watery tones of its coloring. A skillfully arranged placing of the shapes makes the design effective from any angle.*



PLATE 41

## JONAH AND THE WHALE

*anonymous adult woman*

CHARCOAL—CIRCA 1940

*Subtitled “Journey into Death,” this haunting composition is a visual interpretation of a disturbed mental state—the desire for oblivion. It is also a beautifully integrated work of art, produced under the domination of the subconscious mind.*



## **I I   T H E   A R T   E L E M E N T S**

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We have borrowed a term from science and use it, in slightly different application, for the visual arts. In somewhat the same way that chemists of previous decades used the word *element* to mean one of the basic items of the material universe, so we speak of art elements. All kinds of graphic and plastic art utilize them, with each art form emphasizing one or the other according to its characteristic materials and methods and tools.

There are various listings of these fundamental items of the visual arts. Here is a listing that is workable, comprehensive, and clear:

Line	Texture
Shape	Mass
Tone	Space
Color	

The order in which the elements appear doesn't much matter. Other lists use slightly different wording or have the same word applied to several meanings. Many references omit Texture as a separate element and group it with Color. Space, although always important to a composition, has heretofore not been stressed as an art element. Yet nowadays its recognition is considered essential.

One finds that the term Form is often used, as an element, to mean both two-dimensional Shape and three-dimensional Mass. Since this term is also used in a larger sense, it seems wise to forget the restricted meaning. In this book Form is simultaneously inclusive of purpose, material, and technique; it is more than the mere sum of these, however, since it implies an expressive result. Form is the material goal of the artist's idea. As Henry Van Dyke said, "An idea arrives without effort; a form can only be wrought out by patient labor."

Actually none of the elements can be isolated and considered alone in any object, either natural or man-made. But for purposes of study, we will focus our attention on each element more or less independently.

# LINE

Nature almost never provides real lines, as such (Plates 47, 49); they are the province of the artist, when he records his observations about nature or works more abstractly in design. Certain tools and materials easily produce line effects. Among the most familiar are pencil and pen and some kinds of brushes. Line may actually be there on paper, or may be implied by real or imaginary edges and boundaries.

When we draw we can put a line to show the edge of the sleeve across a wrist, or to define a fold in a cape, or to set apart one lock of hair from others. This outline is a man-devised convenience, a sort of shorthand to tell what was where in the object portrayed (Plate 42a). In design, outline is a frequent help. It gives a sharper or a weaker definition to Shape (Plates 7, 8). If the edging is darker than the shape, then that shape becomes more sharply defined; if the outline is paler than the rest of the area, the shape becomes less sharp.

Lines thus define and limit Shape; they divide areas; they show or suggest direction and speed of movement. A gently undulating curve is slow and restful, like a succession of softly rounded, distant hills. A vigorously up-springing line lifts the attention with it.

Lines are either straight or curved. A line which is straight in one section but breaks without warning into a curve looks like a hybrid and seems undecided in character. When used in naturalistic drawing, however, lines are apt to be much less rigidly limited.

Certain effects of Line come from the relation of its width to that of other lines or shapes. Line thus may seem clumsy, or bold and decisive, or delicate. Line may be nervous and uncertain. It may be dashing. This is according to the treatment and quality of the line, as well as its direction. It also depends on the relationship to the rest of the design or drawing. Line can express any character, reveal any mood. And it always reflects directly the tool and the hand that used the tool, along with the muscular tone and state of digestion of the maker.

# S H A P E

It is almost impossible to disassociate Line from Shape, since lines invariably produce or suggest shapes (Plate 42a). The moment there is a line on paper, the blank space around the line seems to become an area on either side of a boundary. The edges of the original shape become parts of the new group of smaller shapes which have been established by the lines. So let us move on to Shape as such, for our second item in the Art Elements.

Shape is a term for a flat area, or plane surface. It has dimensions up and down, from side to side. It has no appreciable thickness. It may be turned obliquely to the observer, or it may stand upright or recline horizontally. It may seem to be moving in space, or placed in some angular relationship to other planes or areas (Plates 9b, 48). In a drawing, such flat shapes stand for the sides, ends, or tops of rectangular objects (Plate 21a). They are distorted and made smaller according to the laws of perspective when they represent surfaces of objects turned cornerwise and existing further away (Plates 14, 15, 16).

Every century and all nations have originated characteristic versions of design using shapes contrasted to the background. This kind of design has qualities that have appealed instinctively to mankind from primitive tribesmen to the urban sophisticates of today. We find this flat-area design in textiles; in basketry; for inlay of metal, stone, ivory, and shell. Its forms are sometimes intricate, sometimes severe, as the spirit of the era dictates. Its character varies likewise from the casual to the precisely formal. But this two-dimensional contrast of Shape against background is found everywhere in time and space (Plates 32b, 37, 38a).

# T O N E

Tone, or the dark-and-light characteristic of a pattern, has a great influence on whether the design appears sharp and precise, or quiet and retiring, or somber and rich, or even weak and wishy-washy. Different amounts of tonal contrast have correspondingly graded carrying-power. You can to a real extent control the mood of your design by the tone in which you choose to present it. This control becomes even more marked when we come to include color in the design.

Where the artist is trying to represent real or imaginary scenes and people, the degree of tonal contrast is chosen according to two purposes—to show the implied distance of an area or object from the spectator, and to show the actual color tone of the objects (Plates 6, 8, 20). Any plane surface which moves into the picture (and so, away from the observer) would be shown in gradually duller coloring and with its definition against other objects increasingly blurred (Plate 45). This all corresponds to the softening-off which distance produces upon our sharpness of vision. Tone is thus a word that includes the light and dark, whether colored or not, that objects display in relation to each other and to their own parts and details (Plate 50). It also includes light and shade from illumination and its consequent shadows, if that is present in any marked degree (Plate 47).

The contemporary representational painter shows what the eye can really see, and he shows little else. A painter in more primitive days, or one working in an Eastern tradition rather than according to Renaissance laws, put in not only what he saw, but also chiefly what he knew was there, regardless of whether he could actually see it or not. The art of children is still like that—paying practically no tribute to the researches of Leonardo da Vinci and his predecessors and followers into the laws of optics and illusions of representational perspective drawing. A child uses tone contrast in an abstract, designed fashion, not in order to establish in his drawing indications of distance and relations in space. Some contemporary adult artists also work on this philosophy (Plates 19, 20).

# C O L O R

There are certain things about Color that may seem hard to remember; but you have to get them, or you'll be forever at sea on the whole subject. Three qualities or dimensions of color need to be distinguished—Hue, Value, and Saturation. We'll take these up separately after a bit. Just keep the names in mind, for you'll meet them again.

So much has been written about color theory and color schemes and the philosophy and psychology of color that the reader stands in danger of mental indigestion if he tries to swallow all the color discussion he is likely to read or hear. Let us consider color first of all from the point of view of mood and character, and perhaps we can gain a functional approach that will help us find our individual ways through the mazes of theory.

When we introduce color into any design or art work, we are giving ourselves a further chance to reinforce the tone effects. Just as sharp contrasts of Tone give bold effects, while gentler gradations are less striking and perhaps more livable for longer association, so Color may be contrasted sharply in all or any of its three qualities, or may have softened transitions introduced for milder moods.

The technical term for the "color" of a color—whether it is red or blue or yellow-orange—is Hue. People as a rule have very little trouble distinguishing one hue from another; by the time they reach sixth grade they can match colors for hue fairly well and, given a pile of colored paper, yarns, or cloth, can arrange them in rainbow order without any hesitation. The yellow-green gets put next to the yellow, a piece a little greener than that goes next, and so on. Seldom will anyone mistakenly slip a purple-blue over onto the green side of the blue samples instead of somewhere between the blue and the purple. Hue, really, is the easiest of the three color qualities.

Now for Value. The coloring matter in oil paints and transparent watercolor, or in the opaque watercolors called "gouache," or in dyes, occurs naturally at certain points in a scale from dark to light. That is, yellow and yellow-green pigments are naturally light, high-keyed colors, and purple is naturally deep-toned. In the prismatic rainbow, which shows the full range of color in its natural state, these tonal steps are clearly seen.

We can, with any pigment, change the characteristic tonal level of its Hue, thus making light-toned purples—such as lavenders, orchid tints, and the like—and dark yellow, which we know familiarly as browns of various kinds. Nature, too, has dark yellows and yellow-

oranges, though not in the spectrum—witness the sere leaves of autumn, the bark of trees, and earth. Pale purples are found in snow shadows and on water at twilight. Nevertheless, for design, it is often wise to stick to the natural order of the scale of color tones as they appear in the spectrum.

This darkness or lightness of a color is called its Value, a very misleading term because it has nothing to do with worth or cost or anything indicating preference or choice. A color of light value is not necessarily negligible; in the logical place for it, it is as desirable as a dark value in its needed spot. Color tones of pale or high value are called Tints; those of low or dark values are Shades.

Value is not too hard to associate correctly with the tones of the neutrals—the hueless grays, blacks, and whites. When it comes to placing the hues in rank according to their value-level between black and white, it is a little more of a job, but not really hard. You can easily tell that pink is a light value of red, and that navy blue is a very dark tone, a shade of blue. You ought to be able to get all the blues in a big pile of samples sorted out in order from darkest to lightest. And you could do the same with each of the hues even if you had many samples to work with. Hue and Value are not so difficult.

The third quality of color has great importance in the total effect of color upon people: it is variously called Intensity, Saturation, or Chroma. This quality operates regardless of how dark or light the color may be in Value, and it is also independent of the Hue of the color.

Saturation determines if the color looks bright and clear, or rich but not extremely vivid, or subtly grayed, or dulled into so nearly neutral a color that its Hue-character is almost lost. Every Hue thus has its range from brilliant to neutral for each Value step from darkest to palest.

There are dark bright blues and dark dull blues, pale gray-blues and sharp blue tints; there are bright deep greens and bright light greens, and rich dark greens that are grayed enough to be somber. There are greens so nearly gray that they are almost without greenness, and you can only tell that they started as green when you put their dull tone next to a brighter and bluer or yellower green that forces out the green so nearly concealed by their low Saturation.

To describe a color completely you have to take into account its Hue, its Value, and its Saturation. You must name all three, in connection with a color, either by implication or directly. One way is to use a well-accepted, untechnical color-name like fuchsia, which always indicates an extremely brilliant Saturation, at just above middle Value, of a Hue between red and purple. Even then, there are fuchsias and fuchsias, as one soon finds out in

trying to match gloves or to harmonize a hat with a blouse, even in a season when the color may be fashion's favorite. Or one might speak of a lavender as delicate, ashen, and resigned. A lavender is a light purple with a bluish quality—that describes its Hue and something of its Value; the Saturation is implied in the three adjectives, to suggest a not full Saturation for the particular light bluish-purple in question. Or you can compare Hue, Value, and Saturation to some article of known and fixed color. Thus you might speak of a range of color from soft daffodil-gold to sulphur's yowling yellow.

Color schemes are just schemes and as such often go awry. Formulas are complex and confusing to follow, besides taking away one's initiative. Useful suggestions as to putting colors together should leave room to make mistakes, so one can do better next time. Here are a few such:

*Colors in a combination should differ in Value more than Saturation.*

*Colors used together, if far apart in Hue, should be similar in Saturation but not too alike in Value.*

*Colors similar in Hue, used together, need be different in Value.*

*Neutrals should be enlivened by strong contrasts in Value among themselves, if they are not to seem ghostly.*

*Neutrals, if placed between colors, will help harmonize the colors.*

*Black or white are most effective with brilliant colors.*

*Gray serves best with colors rather neutralized themselves.*

*Always make each change of color definite enough not to look uncertain, even in the most delicate combinations.*

*Use bright Saturations for strong subjects and vital moods.*

*Somewhat softened Intensity suits more circumstances most of the times, and is the most livable choice.*

*Grayed Saturations, the pale or deep muted colors, have subtlety, but can appear phantom-like if unskillfully used.*

*Beware of using full Saturations with very dull Intensities in close association: one will seem too gaudy, the other merely dirty.*

*Arrange the areas of color in a combination so that there is some relationship and rhythm of recurrence: avoid equal areas of differing Hue.*

*Work for color accent by calculated repetition: be careful of just dropping a color around here and there and hit-or-miss.*

*Limit the number of Hues you use in a combination, or at least work them into a grouping of related colors, so it doesn't look as though you were juggling the rainbow.*

The master colorist can make any color look right in any place.

There are no ugly colors. Sometimes a color may appear with ill-chosen companions, and as a result does not look its best. Sometimes an unfortunate association out of the forgotten past may result in a personal dislike for some particular color, which then will always seem ugly. But there is actually no color which under all circumstances, for everyone, is invariably hideous. Every color is potentially handsome in the right setting.

The question is, "What do you want colors to do?" Decide that, and your problem is half solved. Do you need dissonance or blending? Are the colors to be seen quickly at a glance, or should it be necessary to take time and pleasant contemplation to extract the utmost from their loveliness. What will be their surroundings? Will the color arrangement serve for a temporary situation, or must it be lived with a long time? Is its sponsor to seem gay, somber, subtle, vigorous, wicked, saintly—or what?

If the colors to meet your needs ought to be compatible with each other, try mixing a little of one of them through all the others; that will soften them all and give them something in common. Compare the effect of the red and the green in the full-saturation range (frontispiece), with the red that has some green mixed in it, and a green that has been toned with a little of the red. This will keep the character of the color and at the same time take off its edgy brightness that is often too strong and sharp—at least in large areas.

But what you may need, occasionally, is not gentleness-with-character, but undiluted dissonance. For that, one might put fuchsia, that brilliant light red-purple, next to pure vermilion. It would be rather like striking B-flat and C together, fortissimo. But there are places, even so, where one might want to do that very thing.

# TEXTURE

Even if the same dye—identical in Hue, Value, and Saturation—be used to color two fabrics, they may appear entirely different in coloring if they are woven to have different textures. Thus satin and velvet, serge and broadcloth, tin and concrete, even if dyed or painted alike, will appear to differ because of the characteristic way each reflects the light of its surface structure.

Some objects seem to absorb light and send only dim fractions of it back to the eye of the observer: we call such surfaces “matte.” Other objects have the sort of surface which breaks up the light into thousands of minute mirrors, giving back a dancing glitter of reflection and re-reflection. Certain others let all the light through, like glass: still others keep part of the light and let some of it through in proportions to make the surface look almost transparent or translucent or practically opaque.

Perhaps here is as good a place as any, while we are dealing with the reflection of light, to consider again and more scientifically this matter of dark and light colors, or bright and dull ones.

*An object which we see as bright red has the quality of selecting or filtering out from the rainbow hues in the “white” light of the sun all the wave lengths of white except that of red. Then it shoots back to our eyes all the red in the sunlight, and we say it’s a bright red apple or wagon or whatever.*

*If the object sends back not only those wave lengths of light which mostly correspond to red, but also a lot of the green and purple and yellow and blue wave lengths, our eyes get the result as a dull (or low Saturation) reddish hue.*

*If the object sends back a major proportion of the light which falls on it, then the object will seem light in value. It will be a pale bright pink if it refuses only the red rays and does return almost all of them; or it will be a light dulled pink if it sends back most of the red and some of the other rays, too.*

*On the other hand, if the surface of the object absorbs a great deal of the light, it will be dark in color to our eyes, a color dark and rich and strong, or dark and grayed, depending on the exclusiveness or the mixedness of those limited amounts of the wave lengths of light which the object does return to the observer’s eyes.*

*Of course, if there is only green light by which to see an object which reflects, under normal lighting, only red, then that object will be a fine obscure mud color until it gets some of its preferred ray-of-reflection to reflect. Seeing the color of an object depends both on the kind of light that falls on it and on the kind of light it needs to show its character as color. If it doesn't get light rays of its proper wave length, it can't look natural. Observe the girls' lovely red lips when the traffic light turns green some night.*

Now let's get back to Texture. Some art schools have their students construct texture-scales, of fur and velvet and serge and wire-mesh and glass and sandpaper and all sorts of things, to develop their understanding of texture. And we may find that the reason we choose one thing out of a group of similar items is that it has, to our notion, a more sympathetic surface. So industrial designers are concerned to know about Texture and its appeal for the buying public.

Besides actual textures of real objects, it's often useful in designing to suggest textural variations by dots, cross-hatching, oblique parallel lines set close together, and the like. These serve to modify the Tone of an area or to distribute bits of one color for the sake of variety and additional vividness (Plates 11a, 12b). It is a good way to get intermediate values between the darkest and the lightest tones, without the added expense of extra color-printings. One can thus use a single color of ink and get a number of value-steps in the design as printed. This is frequently done in textile designs (Plate 38a).

Each kind of thing has its own kind of texture: smooth or bumpy, soft or harsh, limp or crisply stiff, yielding or rigid, warm or chill. Tweed, for example, is warm, uneven, rough, and rather coarse and wiry for cloth; ivory is sleek, warm, and smooth with a slight grain; porcelain, smooth and cool. Many of the variations of Texture bring in actual or imagined muscle sensations in order to gain fullest appreciation. Texture is thus a source of tremendous pleasure to those with defective eyesight, as well as to people with all their senses at keenest pitch.

## M A S S

This element is three-dimensional, either actually (Plate 10b) or by an illusion of depth upon a really two-dimensional surface (Plate 9a). Paintings, for instance, characteristically show apparent depths into distance and massive heavy objects existing within surrounding space, although these are accomplished on a flat canvas purely by skill in draughtsmanship and coloring (Plates 15, 16, 22). When, in drawing or painting, the illusion of depth or existing mass doesn't seem quite right, and there is apparently no reason for the distortion except lack of skill on the artist's part, we say the work is "out of drawing" (Plate 18). Do not confuse this with intentional distortions made for enhancement of mood and character (Plates 5, 16).

Sculpture, of course, and architecture, are actual three-dimensional arts. Mass, therefore, is their outstanding and characteristic element, with Line usually subordinate and Shape frequently minimized. But in a row of city buildings constructed corner to corner along a street, each building will appear as if it possessed only its two-dimensional front façade: it will seem Shape rather than Mass. Actually, however, to the architect and to the informed layman the volume enclosed by the building, and how that volume is utilized and organized within, is just as important as if the Mass defined by its exterior were entirely visible.

Other art forms also emphasize Mass and three-dimensionality (Plates 24A, 36, 51). Industrial design deals primarily with objects of this sort—typewriters, radios, telephones, chairs, packages for cereal or perfume or razor blades, locomotives, and electric fans. Until the last couple of decades this kind of designer was comparatively unknown. Nowadays the man who can plan three-dimensional objects, either the solid or the hollow, is in increasing demand. Correspondingly less emphasis is being placed, in our best art schools, on flat surface designing; more and more the student is taught to think in depth as well as height and breadth, all together at one thinking. Formerly the designer built up a three-dimensioned object almost entirely from a combination and synthesis of various flat views of the thing (Plate 21a). Such working drawings of plan and elevation are being superseded by diagrammatic kinds of drawing which present the object as a whole complete in space. Some of these ways of presentation are based on isometric perspective of various sorts, in which the depth-dimension is given greater prominence than in the usual vanishing-point perspective. These

allow—as the name, “equal measure,” indicates—accurate measurements to be made on all dimensions of the actual drawings without having to bring in mathematical calculations because of foreshortening in the drawing (Plate 21a).

The so-called “exploded” view is now coming into prominence in industry. This is a new sort of working drawing which gives an appearance of in-the-round existence in space (Plate 22). It also shows relations of part to whole which no other version of representation can provide and which the actual finished object conceals completely. This sort of perspective drawing can be done only by a highly skilled technician—above all, it needs to be done by a person with a very clear and accurate sense of the third dimension. Once drawn, any apprentice with a modicum of common sense can understand it and work on his little section of the whole object with a truer comprehension of its relation to the rest of the construction. Blueprints, those heretofore essential ways of presenting diagrams from which to construct objects, are far harder to read. Blueprints show successive sections sliced through the article, with plans and elevations and some x-ray views, but they are essentially two-dimensional. The difficult-to-make exploded-view diagram will undoubtedly supersede blueprints, for the former is much easier to translate into reality, since it bears more resemblance to the clearly pre-analyzed actual object.

# SPACE

This last of the art elements on our list is the hardest to define, yet it contributes to the effect of every art product. Sometimes Space is considered to be the area between objects, the air around and above and under them (Plates 45, 48), or it is thought of as the hollow, the volume of a Mass (Plates 2, 10a, 35c). In this sense, architecture is primarily the art of Space, for each room encloses its particular chunk of Space (Plate 14), and the furnishings, doors, and windows modify that enclosed Space and determine how it can be used by the room's occupants.

In another sense we speak of the Spacing of a textile design as too open for the size of the motif, or as too tight and involved. When the areas between motifs seem perfectly adjusted to the size and shape and placement of these motifs, there is a peculiarly satisfying quality about the design (Plates 24c, 28).

We notice Spacing mainly when it is not successful—when objects in a painting seem to be trying to exist in the same place at the same time and to interpenetrate one another, or when color is misused and brings certain items forward or sets them back out of their logical distance, or when a design, considered as a whole, “falls apart.”

Space is the element essential in stage design and the dance. The actors and dancers pass in Space upstage and downstage, in and out amidst the setting, and often move from one level to another as well. Oblique action is particularly striking: a character descending on a long slant from a high dais at the rear of the stage obliquely down toward the audience conveys the effect of great, of irresistible, power. Here is a most vivid use of the dynamic diagonal.

All perspective schemes imply Space. Sometimes this involves a “forced” perspective, with greater depth packed into a composition than nature would provide. This is done by skillful distortion in the drawing. A knowing use of color enhances the effect of Space by taking into account the changes which real distance makes upon the eyes' perception of color. Thus things far away appear cooler in Hue, duller in Saturation, and less distinct in Value. By exaggerating these differences from coloring as it appears when closely viewed, the artist can set his distance farther back and add to the effect of deep space.

Some painters maintain that these illusions of depth on the essentially flat surface of a canvas (Plates 1, 8, 46) are mere tricks and unworthy of an artist. They prefer to build up distance by a series of planes receding vertically one back of another into the depth of space

(Plates 15, 20). Oriental artists usually choose this plan and so do some Westerners. European artists before the Renaissance, and children, do likewise. Thus, regardless of the distance from the observer, the detail remains clearly visible (Plate 19) rather than blurred by its recession into space (Plates 18, 45).

### **III THE ART PRINCIPLES**

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Even more than in the case of the Art Elements, textbooks and volumes on aesthetics name a multitude of art qualities "Principles." These are ranged in minor and major ranking: frequently a quality which is on the major list for one authority is relegated to a minor place by another or omitted entirely. This book names three major Principles for arranging the elements selected for use in a composition or art product. These are:

**RHYTHM**  
**BALANCE**  
**EMPHASIS**

The terms Unity, Contrast, Harmony, Proportion, are often considered Principles although it is more exact to consider them end products of certain ways of applying Rhythm, Balance, and Emphasis. They are therefore the goal toward which the Principles focus or the manner in which they are used. If we are extremely fortunate, the product may partake of Beauty.

## R H Y T H M

Any regularly repeated accent displays the compelling power of Rhythm. The pattern of stresses may be a simple time-accent like the one-two, one-two, one-two of the underbeat of most dance music. It may be as complex as those American Indian songs that set a three-four accompaniment of gesture against a four-four beat for the words. Visual accent also provides rhythmic patterns—simple (Plate 28), or elaborate (Plate 37). The regular repeat of wall-paper's surface motifs is a case in point.

Rhythm in the visual arts is mainly directional—generally extensive in an all-over pattern; extending chiefly from side to side along the length of the border design; staying enclosed within the limit of the Shape, in a panel. Rhythm also underlines the mood of the work of art. Staccato rhythms give a more intensely dramatic quality, a sharpness suitable for quick and violent impressions (Plates 5, 42b). The more continuous, legato rhythms go with a gentle and suave effect. Each has its needed place.

The recurrence of stress or accent, which produces Rhythm, may be secured in many ways. A color-note may be so distributed throughout a painting or a decorative design that the eye follows it in a pleasant sweep which seems in itself rhythmic. The parts of a design may be placed alternately—big, little, big, little, and so on; they may occur in sequence, like big, middle-sized, small. Such gradations of sizes or shapes can become quite elaborate and still count as a simple rhythmic stress, if the parts making up the series hang together in units (more or less complex), and you sense the repetition of such units. The progressions are thus comprehended as part of a recurring pattern. They may even be exceedingly complex and not easily discoverable; these will be most fascinating to experienced minds (Plates 1, 5, 24c). Or the rhythm may be so simple that, grasped immediately and completely, it holds little interest except for the naïve.

Rhythm moves three-dimensionally (Plates 24a, 43) as well as in two dimensions (Plates 11b, 24b). Too often we think of it as just going from side to side as in a border design (Plates 32b, 33), or up and down and sideways, like an all-over surface pattern (Plate 34b). Diagonals and other angled directions are included in the possibilities here, of course, but even these are usually conceived of only as in-the-flat. But more complex rhythms are present in nature and in many of man's designed objects, both decorative and naturalistic. These rhythms recede into deep space and emerge from its depths, rising and falling as they move inward and outward and obliquely. Three-dimensioned rhythms twist, they spiral, they swoop and soar with abundant vitality.

## B A L A N C E

When opposing forces neutralize each other and stand in equilibrium, they are balanced. This may occur when equal forces are opposed or there is an adjustment of unequal forces.

The first—equal forces arranged about a central point or an axis—is called symmetry (Plate 39a). These forces may be placed radially; they may go face to face or do-se-do like the couples in a country dance. The effect is static in its repose. It's fairly obvious and comparatively easy to achieve in composing with the art elements.

Occult, or asymmetric, balance occurs when unlike forces are so related that there is a satisfying sense of equipoise (Plate 10a). You must compare the carrying power of color, size, shape. If you include an object which is particularly significant it can outweigh others of less significance. Thus the human figure possesses greater psychological meaning than animal forms, animals seem more significant than plant forms, and plants in turn are more significant (in this sense) than rocks. This is true only in a general way, of course. Yet it is a matter to be reckoned with in assembling items to be balanced asymmetrically. One shifts the placement and relationships of objects intuitively, by trial-and-error rather than by rule, until the result has the dynamic poise characteristic of occult balance. Once the arrangement is completed, it seems inevitable. The wonder is that it wasn't clear from the first.

We feel balance in our deepest being. It was developed in the aeons through which mankind gropingly taught itself to stand erect. Balance of posture is still tentative with us humans, easily disturbed by illness and mental distress. Intense emotion literally upsets us, shifting awry that so precariously held, so painfully achieved, equilibrium between opposing muscle tensions which alone enable us to hold ourselves upright. We stumble, we sink to earth's support when we feel too deeply.

So it is not old-maidishness that impels us to straighten the picture hanging a-slant on the wall. If an object does not balance, no peace can be had with it. Such offenses against our hard-won battle with the law of gravity are disturbing reminders that the struggle for balance is but temporarily won.

The rhythm of breathing and heartbeat play counterpoint to our man-made three-four and six-eight and four-four rhythmic stress in visual and aural accent, to the urgency of five-four, and the dignity of two-four. In the end, death wins our struggle for balance: but while we live, poise is the signal we rally to. Balance and Rhythm are in our living blood and bones. No wonder that design, in sound and vision, throughout all ages and for every race, holds these principles paramount.

## EMPHASIS

In contrast with Balance and Rhythm, which are inherent in the human organism and can only with some difficulty be abstracted and considered coldly, Emphasis seems a more intellectual matter. At least it is easier to analyze and discuss dispassionately. It builds, first of all, upon a central idea. The trouble with much work by beginners is their inability to decide *which* of several ideas they will use, so they put all the notions in together for fear of leaving out something important. The result is chaotic.

How many times does the English teacher have to say, "You're trying to write three themes at once. Make up your mind." How often will a poster advertising an article include so many kinds of data about that article that the observer is too confused to bother with it!

One remedy is strict elimination of what is actually irrelevant. That way might seem bare and oversimplified. Another is more attention given to Emphasis—the subordination of minor features to present the main thought with greater forcefulness. Thus one need not leave out everything but the one central theme. For the sake of dominance, the theme's minor components have to be given lesser degrees of attention (Plate 5).

Herein Contrast plays its part, stark and overpowering, or softened by transition. Changing measure of sizes, graded brilliance in color, varying scale of tone, all point up the main section which is the largest, most complex, of brightest intensity, lightest or heaviest, palest or darkest, made important with the highest degree of enrichment, or set apart in some other way for the keenest attention.

Contrast is a condiment. Some temperaments crave highly-spiced combinations—contrast brought as far as dissonance (Plate 6) or even to discord (Plate 9b). Other personalities prefer subdued and muted contrast, more gentle harmony (Plate 11a). And one kind of contrast suits one type of idea, another kind belongs to a differing purpose. The temperament of the artist also dictates a leaning toward harsh contrast and dissonance or toward charmingly softened contrasts. Each is a way of Emphasis.

One period will choose discordant arrangements; another cleave to what seems monotonous or insipid to a subsequent age. Some people maintain that the history of music is a record of man's increasing ability to comprehend greater and greater dissonance as part of the organization of sound which is music. Our age of conflict and tension is particularly

attuned to harmonies of discord. In these the harmony may not be very apparent to temperamentally unsuited eyes and ears. Yet a later age may find our art products not too productive of teeth-on-edge.

Also essential for Emphasis is a feeling for Proportion, both physical and psychological. It has to do with the relationship of the parts to the whole (Plates 1, 8, 25a). To sense when a thing has been stressed enough, to stop just *before* there is too much repetition of a color or a sound or an idea, to build by logic and intuition to, but *not beyond*, the climax—that is the hardest thing to learn in all the arts. Some say it can never be learned, that it marks the difference between the born artist and the one made, the difference between a mere technician (clever as you please) and a creator.

By skillful and discriminating arrangement of the art elements according to the principles of Balance, Rhythm, and Emphasis, the artist achieves his goal for each particular work. When the elements chosen to play the major part in the object are utilized appropriately to the idea behind the whole, when the elements are adjusted—suitably to the idea and the purpose behind the idea—by means of these principles of arrangement, then the finished work is likely to be satisfying and complete. In other words, it will be harmonious, whether in concord or in discord.

Harmony implies a precise adjustment of Unity with Variety (Plate 34a). Too much Unity becomes monotonous; too much Variety is chaos. Harmony includes many fitnesses—fitness to the purpose of the artist, whatever that may be and whether the work of art be Symbol, Signal, Sign, or all three; fitness to the materials chosen by the maker, so that wrought iron (Plate 10a) is not tortured into attempted imitations of realistic rose petals and does not violate the character of metal; fitness to the method and processes of the making, neither requiring that a machine try to substitute its technique for hand carving, nor attempting in woven tapestry (Plate 37) a treatment suitable only for a painting; fitness to the tools employed and the technique imposed by those tools, which is a further refinement of the fitness just above; and finally, fitness to the environment for which the object is intended. Thus no part of the work of art remains unorganized; nothing is left to chance and nothing is misused.

We work for Harmony. In supreme instances we may attain Beauty, most indefinable of all qualities. Beauty comes most often after a careful and devoted series of choices. But we cannot very well say, “I am now going to make a beautiful handbag”—and thereupon do so of a surety. We can more reasonably say, “I am making a handbag out of luxurious materials. It’s rich in color and soft of texture. The buyer should use it with afternoon clothes made of velvet with, perhaps, squirrel fur, because this bag is going to have silvery details

in beading and frame that would be right with the delicacy of that fur. I hope the finished bag will turn out to be as beautiful as the idea of it that's in my mind." This sounds harmonious, at the least. Unless the workmanship is faulty, the shape unfortunate, the materials scamped, that bag should be beautiful. Its beauty would result from well-chosen ingredients, harmoniously employed together according to a vision definitely calculated for a particular effect.

Equal or greater beauty could have been obtained through simpler materials, for some less elegant use. In themselves, costly ingredients do not insure more valued or handsomer results. It is how the things are used together to build up the article, even more than what is used, that determines the beauty of the product and makes it a work of art.

A

PURPOSE

is associated with  
a

GOAL

which generates  
an  
Idea  
in the mind of a human being

through his  
Imagination  
operating within his  
Memory and Experience  
this

I D E A

is actualized into  
a

F O R M

out of  
Material  
(natural and/or man-made)  
by  
Analysis and Action  
by means of  
Tools and Processes  
(dependent on hand and/or machine)  
appropriate to its intended use

emphasizing one or another  
of the

(Line    Shape    Tone    Color    Texture    Mass    Space)  
Art Elements  
arranged according to

the  
Art Principles  
(Rhythm    Balance    Emphasis)  
organized by  
Proportion

to produce an effect of  
Repose                      or                      Liveliness  
(in either case possessing vitality)

so ordered as to result in

HARMONY

which is a consistent relationship of  
Unity                      with                      Variety

and in supreme instances  
the  
Art Product  
(embodiment of its maker's purpose)  
may achieve

BEAUTY

## LINE

## SHAPE

## MASS

### I KIND

*a straight*

strong  
precise  
simple  
direct

*b curved*

flexible  
free

*finite curves*

circle, arc of circle

sure

comprehensible

*infinite curves*

C-curve

growing

gay

tender

S-curve

graceful

easy

elegant

spiral

complex

luxurious

magnificent

### II WEIGHT

*thin*

delicate

frail

feminine

*thick*

vigorous

bold

masculine

### DIRECTION

#### TWO-DIMENSIONAL

*vertical*

noble  
dignified  
majestic  
proud

austere  
severe  
rigid  
bigoted

*horizontal*

eternal  
peaceful  
tranquil

limited  
weary  
deathlike

*angled*

active  
lively  
struggling

nervous  
insecure  
hating

#### THREE-DIMENSIONAL

*inward-moving*

receding  
retiring  
introspective

shrinking  
inverted  
self-centered

*outward-moving*

opening  
expanding  
objective

falling apart  
disintegrating  
impersonal

*oblique*

dynamic  
powerful  
progressive

nervous  
violent  
explosive

### TREATMENT

*continuous*

free  
assured  
vital

*broken*

indecisive  
weak  
agitated

*implied*

subtle  
fantastic  
uncertain

### MOVEMENT

gentle  
decisive  
violent

## tone or value

### KIND

*dark*

somber  
rich

*pale*

gay  
delicate

### QUALITY

*luminous*  
even  
smooth

*dull*

uneven  
mottled  
speckled  
blotched  
ridged

### WEIGHT

*heavy*

important  
grand

*light*

uncertain  
informal

*graded*

### DISTINCTNESS

*blurred*  
weakened

*sharp*  
decisive

### TEMPERATURE

*warm*

advancing  
enveloping

*cool*

retiring  
aloof

# COLOR

## DIMENSIONS

### hue

location on the spectrum  
wave length of reflected  
light

also results from a mixture  
of pigments

### value

luminosity  
quantity of light reflected

### tint

high luminosity made by  
flooding the object  
with light  
obtained also by mixing  
pigment with white

### shade

low luminosity made by  
restricting the light  
which is allowed to  
fall on the object ob-  
tained also by mixing  
pigment with black

### saturation

quality of light reflected  
purity of admixture of  
wave lengths of reflected  
light

also results from a mixture  
of pigments with grays  
"broken" color with op-  
posite hues "compound"  
color

Vermilion and chocolate are  
identical in hue; so are the  
colors of a sapphire and of a  
chicory-flower

Chicory-flower blue is a tint of  
the sapphire's blue  
chocolate is a rather dark shade  
of the hue represented by  
vermilion

Chocolate is somewhat more  
neutralized than vermilion  
(which is full saturation as  
one of the purest reds obtain-  
able)

*green, Dec 6*

## TEXTURE

### WEIGHT

heavy light

### FALL

limp stiff  
crisp floating  
angular rounded  
meager ample

### TEMPERATURE

warm cool cold

### REFLECTION OF LIGHT

luminous bright dim  
transparent translucent opaque  
glossy glistening matte  
sparkling shiny

### CONSTRUCTION

even irregular netted  
loose tight fringed  
solid lacy looped

### FEEL

smooth rough  
hard yielding  
soft harsh  
sharp dull  
prickly velvety  
furry hairy

## SPACE

### STATE

simple	complex
open	enclosed
extensive	restricted
full    occupied	vacant

### TYPE

#### *still*

passive	dynamic
weary	vital
tranquil	frustrated
constricted	expansive

#### *moving*

shrinking	unfolding
conflicting	serene
orderly	chaotic
advancing	receding
gentle	turbulent

## ILLUSTRATIONS FOR PARTS II AND III

In these drawings and paintings the medium gives Line, Tone, Shape, Mass, Texture, Space, and Color (although the latter can only be implied in the necessary black-and-white reproduction). The way the medium is used by the artist records his choice of character and mood. Flowing transitions or detail sharply defined, a separation of solid forms or atmospheric blurring of distance, the uncertainty of trance or the definite shapes of reality—these are according to the maker's intention.

The photographs of nature subjects were all made by outstanding artists of the camera. Through their vision the mechanical eye has isolated from the multiplicity of nature's detail a section which focuses psychologically. Light and shadow provided by the actual world were chosen imaginatively to support effects sought by the artist. And here, as in the examples of paintings, one finds, even with man-made objects like the bridge, an absence of the traditional artist's insistence on human beings in the foreground of everything.

Indeed, only in the twentieth century could any of these works have been made. The contemporary artist alone sees the world distinct from domination by mankind. Compare the exquisite small landscape set in the midst of the figures in Plate 1, a distant gem which by its loneliness enriches the comradely quality of the living beings, with the wide free emptiness of nature wherein man is an intruder, as in Plates 40 and 48. To earlier generations these latter would have been unthinkable as works of art. For the first time in history humanity is able to stand outside itself long enough to see the earth clearly.



PLATE 42a



PLATE 42b



PLATE 43

PLATE 42

MUSICIAN (a)

*Rico Lebrun*

INK—1940

*The delicate flexible Line defines Shape as well. A surprising amount of character is conveyed by the compact pose and the suggestion of features in this drawing of a Mexican accordion player.*

TREE IN SUSSEX (b)

*Pavel Tchelitchew*

BROWN INK—1934

*The more sturdy Lines employed for the tree build up a sure indication of its gnarled Masses and bring out the rough Texture of its twisted limbs. Its volume is suggested further by the use of "wash" in the same ink with which the Lines have been made. This study of an ancient tree was the start of Tchelitchew's latest composition, "Hide and Seek."*

PLATE 43

BUTTE, UTAH

*Adolph Dehn*

WATERCOLOR—1940

*Even in the hueless tones of its reproduction here, the surging strata of the foreground rocks seem heavy, dark, even gaudily colored, by contrast with the shining masses of the cliffs against the sky. It is a powerful yet lyric work, in which the sense of solidity of Masses and their grouping is the major theme.*



PLATE 44



PLATE 45

PLATE 44

COLT

*Edward Chavez*

GOUACHE—1939

*Shaggy, rough-pelted, the colt mirrors alertly the stance of the mare beside it, and wind-etched snow hillocks echo the windy sky. Texture and Shape together repeat and reinforce the bleak freedom of this impression of wintriness and blustery weather.*

PLATE 45

SNOWSCAPE

*Arnold Friedman*

OIL—1926

*Winter is shown again here, but now in the poised stillness of a sub-zero day, in space, quietness. To contrast with the dense woodland behind the pond, a tracery of frost-rimed twigs stands against the slow undulations of the meadow snows. The skater's swift charge is held in Balance by the one twisted trunk in the left foreground and the static trio of pines at right center.*



PLATE 46

LANDSCAPE WITH WILD HORSES

*Carlos Enriquez*

OIL ON COMPOSITION BOARD—1941

*The flow and recession of movement of the gamboling wild horses in this dreamlike land repeats itself throughout the composition. Rhythmic sweep of stream in the foreground is counterbalanced by reverse rhythms in the hillside and the cloud-streaked sky and punctuated by tall palms topped with arching plumes of foliage like the tossing manes of the horses.*



PLATE 47

PLATE 47

KELP

*Edward Weston*

PHOTOGRAPH—1930

*Twisted ropes and tendrils of the coiling seaweed, that vegetable serpent of Pacific waters, is shown both as Line and as Mass. The Emphasis of the composition is on the cylindrical forms in many sizes—variations on a single theme.*



PLATE 48

CONSTRUCTION OF  
GOLDEN GATE BRIDGE

*Peter Stackpole*

PHOTOGRAPH—1935

*The camera here takes a sea-gull's view of the cables of the uncompleted bridge as they plunge toward the glittering waters of the Bay. Texture, Line, and Shape are stressed in the sweep of their fall.*



PLATE 49

GRASSES—MORNING, LAKE GEORGE

*Alfred Stieglitz*

PHOTOGRAPH—1927

*Tufts of grasses, shining in jeweled clumps, with their soft furry shadows, are broken by wider, coarser grasses in the foreground. Tone, ranging from bits of mirror-brightness to deepest shadow, as well as Texture, is the theme here.*



PLATE 50

DYING POPLARS, LAKE GEORGE

*Alfred Stieglitz*

PHOTOGRAPH—1934

*The rhythm of branch and twig, lifted against a darkening sky, shows the urge to sunlight that marks all the kingdom of earth. The scant leaves which remain cannot conceal the skeleton of characteristic growth. A low horizon gives Emphasis to the tree forms.*



PLATE 51

SIDE OF SNOW-COVERED MOUNTAIN

*Cedric Wright*

PHOTOGRAPH

*Bastions of snow and snowy cloud together bring a vision of the icy loneliness of Space on the mountain peaks of the world. The likeness yet difference between white cloud and shining snow, the rounded masses in the sky contrasting with the scooped forms of the wind-chiseled snow wall are the essence of lonely desolation. In this sliding composition, held in visual Balance only, the cloud's lift at extreme right, the artist has successfully presented a daring experiment in dissonant design.*



## **G L O S S A R Y**

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**ABSTRACT.**—Characterized by little or no reference to the appearance of objects in nature.

Sometimes called non-objective, in contemporary art parlance.

**ART.**—Skill in applying knowledge or ability to the accomplishment of concrete purpose.

**BALANCE.**—The state of being in equipoise; equilibrium. To poise or arrange so that opposing forces neutralize one another.

**BEAUTY.**—Grace or fitness exciting keen intellectual or moral pleasure; that perfection which excites admiration or delight for itself, or which induces immediate and disinterested pleasure. . . . Perfection attained through form as the flawless manifestation of an artist's conception. Beauty is usually conceived of as related to the ideal.

**COLOR.**—That quality of an object by which it emits, reflects, or transmits certain rays of light and absorbs others; general effect of light with emphasis upon hue.

**CONCORD.**—Agreement, consonance; an effect of likeness and belonging together.

**CONVENTIONAL.**—Following conventions in respect to design, technique, or conception; hence, formal, ordinary, lacking spontaneity. Created by a long succession of precedents.

**COUNTERCHANGE.**—To make one design by reversing the figures of another. Often done in the one design by transposition of colors or tones on either side of a partition line, so that each half or quarter reverses the effect of the other.

**DECORATION.**—The art of adorning, embellishing.

**DESIGN.**—Thought, purpose or intention as revealed in the wise correlation of parts or in the adaptation of means to an end. Purposively planning as revealed in or referred from the adaptation of means to an end or the relation of parts to a whole.

**DISCORD.**—Incongruousness, disagreement, quarrelsomeness; an effect of sharp differences.

**DISSONANCE.**—Harshness; an effect less "unmelodious" than the discordant, but much less agreeable than concord. All three can be harmonized by skillful organization of relationship. Discord and dissonance will never be as easy or as pleasing as concord. They may, however, be as ordered and complete, of their kind—that is, as well-designed—as the concordant harmonies.

- DYNAMIC.**—Pertaining to energy . . . active. Pertaining to forces not in equilibrium.
- DYNAMIC SYMMETRY.**—An elaborate series of mathematical calculations devised to provide a basis of formulae for satisfactory composition in the arts. It is usually credited to Jay Hambidge, who applied the system to works of art in the attempt to analyze their proportions and internal relationships.
- ELEMENTS (of Art Structure).**—Different and distinct features which are used by artists in the development of a work of art.
- EMPHASIS.**—Subordination of minor features to lay stress on the central idea: arrangement in which the major component is brought out forcefully by associating all other components with lesser development or degree of attention.
- ENRICHMENT.**—Any rich decoration added to an object.
- FORM.**—The peculiar configuration by which an object is recognized by sight or touch, the appearance or character in which a thing presents itself.
- GEOMETRIC.**—Forming or consisting of regular lines, curves, and angles.
- HARMONY.**—The just adaptation of the parts to each other, in any system or combination of things; a normal state of completeness in the relation of things to each other; an affinity of the parts to the whole—consistency.
- HUE.**—The quality of the light, determined by its wave length returned by the object to the eye of the observer. The cycle of the spectrum. One of the three color properties or qualities or dimensions, the others being Value and Saturation (q.v.).
- IDEALISTIC.**—Opposed to the Realistic. Character of the highest type of excellence or ultimate object of attainment; pertaining to perfection of kind; a standard of perfection, especially as an aim of attainment or realization.
- LINE.**—A mark drawn to indicate direction or form; edge of a figure; outline: place of separation; dividing edge; limit.
- MASS.**—Bulk, with the implication of size also; extent of volume; three-dimensional; the solid.
- NATURALISTIC.**—Closely resembling or reproducing nature. Not conventional or ideal; a term less emphatic than “realistic,” which is often condemnatory.
- OCCULT BALANCE.**—An arrangement of unlike forms which achieve in their related positions a satisfying sense of repose.
- ORDER.**—A methodical arrangement. A methodical and harmonious arrangement.
- PRIMITIVE.**—The untutored work of a savage, or of a naïve person in a developed culture (this latter case is often distinguished by putting “primitive” in quotes).
- PROPORTION.**—Comparative relation: harmonic relation between parts or different things of the same kind.

**REALISTIC.**—Not idealized; lifelike, true to fact, often a disagreeable characterization.

**RHYTHM.**—Movement characterized by regular measured recurrences of stress, accent, or motion; a sense of completed movement without beginning and without end.

**SATURATION.**—The degree of light—whether it is single in wave length or of combined wave lengths. That attribute of chromatic colors which determines their degree of difference from a gray of the same brilliance. Grays have zero saturation: spectrum hues are at maximum. One of the three dimensions of color. (See also Hue and Value.)

**SCALE.**—A standard for reference in estimating or judging; a progressive graduated series; relative proportion, size of parts compared with the whole or with the human figure.

**SHAPE.**—The disposition of the external bounding surface of a body or lines of a plane figure: configuration, contour. Surface, area, silhouette, plane; two-dimensional, flat.

**SPACE.**—Extension in all directions: expanse: boundlessness. Sometimes considered as a receptacle for things; intrinsically void; an ultimate environment. The distance between objects, whether regarded as filled or unfilled.

**SPECTRUM.**—An image formed by waves of light . . . in which the parts are arranged according to their . . . wave lengths, forming a regular progressive series.

**STATIC.**—Mere mass at rest; weight without motion: pertaining to passive as distinguished from active elements; quiescent.

**SYMBOLIC.**—Characteristic of an emblem, an object chosen to typify or represent some idea or quality in something else. That which stands for or suggests something else on account of a resemblance in one or more of their characteristics or associations.

**SYMMETRY.**—Arrangement of like forces on each side of a central point, axis, or plane.

**TEXTURE.**—The particular characteristic arrangement or make of the surface structure of an object or material; refers to tactile sensation, real or imagined; it may be a purely visual illusion of texture. The surface quality of a kind of material.

**TONALITY.**—A term implying both light and dark pattern and pattern of color.

**tone.**—General effect of light, with emphasis upon values. Produced by the quantity of the light (cf. Value). Light and Dark, whether colored or not; also Light and Shade, Illumination and Shadow. Suggested by arrangement of lines, values, and textures.

**UNITY.**—To make many things into one whole. Singleness; a totality of related parts.

**VALUE.**—The quantity of the light reflected, whether it be meager or ample. Tint—diluted with white pigment, or flooded with light; Shade—deepened with black pigment, or darkened with shadow. One of the three qualities of color.

**VARIETY.**—Intermixture or succession of different things or qualities.

**VISUAL ARTS.**—The arts of space, light, and color.



## B I B L I O G R A P H Y

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## GENERAL ASPECTS OF ART

BARTLETT, FRANCIS GRANT, and CRAWFORD, CLAUDE C. *Art for All*. New York: Harper & Bros., 1942. 271 pp.

Planned as a high-school text or reading reference. Excellent, specific, challenging. Considers art in dress, home, industry, school.

BULLEY, MARGARET H. *Have You Good Taste?* London: Methuen & Co., Ltd., 1933. 54 pp.

A guide to the appreciation of the lesser arts; analysis and recommendations.

BURRIS-MEYER, ELIZABETH. *Color and Design in the Decorative Arts*. New York: Prentice-Hall, Inc., 1937. 572 pp.

Encyclopedic, luxurious; a very handsome book.

CLOSS, HANNAH PRIEBSCHE. *Art and Life*. Oxford, England: Basil Blackwell, and Mott, Ltd., 1935. 138 pp.

Analytical and interesting.

McMAHON, A. PHILIP. *The Art of Enjoying Art*. New York: Whittlesey House, 1938. 319 pp.

Technical and scientific examination of the facts of sensation, technique, form; valuable and exact. Emphasizes drawing.

MEIER, NORMAN CHARLES. *Art in Human Affairs*. New York: McGraw-Hill Book Co., 1942. 222 pp.

General and philosophical; interesting and valuable.

## THE MEANING OF ART

BULLEY, MARGARET H. *Art and Understanding*. London: B. T. Batsford, Ltd., 1937. 292 pp.

Interesting, challenging, but puts the whole issue on a moral and spiritual plane, which seems too simple a solution.

- DOWNNEY, JUNE E. *Creative Imagination*. New York: Harcourt, Brace & Co., Inc., 1929. 230 pp. Fascinating discussion of the release and training of the imagination.
- EDMAN, IRWIN. *Arts and the Man*. New York: W. W. Norton & Co., Inc., 1939. 154 pp. Charming and absorbing; includes consideration of the visual arts, literature, music; influence of the arts on civilization.
- EVANS, JOAN. *Taste and Temperament*. New York: The Macmillan Co., 1939. 128 pp. Brief and valuable study of psychological types in their relation to the visual arts; absorbing.
- LOWENFELD, VIKTOR. *The Nature of Creative Activity*. New York: Harcourt, Brace & Co., Inc., 1939. 272 pp. Starts with investigation of the art work of blind and weak-sighted children; compares their concepts with those of normal children and with primitive and ancient art; revelatory and fascinating.
- LOWES, JOHN LIVINGSTON. *The Road to Xanadu*. Boston: Houghton Mifflin Co., 1927. 639 pp. Utterly absorbing relation of the material read by Coleridge to his re-creation of it in "Kubla Khan"; helps to explain the creative process.
- RANK, OTTO. *Art and Artist*. New York: Alfred A. Knopf, Inc., 1932. 431 pp. The creative urge and personality development; philosophical.
- READ, HERBERT. *Art and Society*. New York: The Macmillan Co., 1937. 282 pp.  
———. *Education Through Art*. London: Faber & Faber, Ltd., 1943. 320 pp. Both are valuable and interesting; philosophical, analytical.
- THURSTON, C. H. P. *The Structure of Art*. Chicago: University of Chicago Press, 1940. 190 pp. A scientific investigation of the relationships between components and the effect of each on all the others in a work of art; consideration of the effect of the work on the spectator; essentially a start toward a science of esthetics; very valuable.

TUCKER, ALLEN. *Design and the Idea*. New York: The Arts Publishing Co., 1930. 82 pp.  
The creative spirit; challenging and sensible.

## PRIMITIVE AND FOLK ARTS

BAUD-BOVY, DANIEL. *Peasant Art in Switzerland*. London: "The Studio," Ltd., 1924. 76 pp.

This, with the books edited by Holme, is the most attractive and usable reference on the subject; mostly plates of costume, minor arts, and utensils.

BENEDICT, RUTH. *Patterns of Culture*. London: Houghton Pub. Co., 1935. 291 pp.

An eye-opening account of the differences in motivation between various groups of primitive peoples; scientific and exciting.

BOSSERT, HELMUTH TH. *Das Ornamentwerk*. Berlin: Ernst Wasmuth, 1924. 120 plates.

Magnificent colored plates of Oriental and exotic arts: Oceanica, Australian aboriginal art, Asia, Africa; American Indian, both north and south; some folk art, some ancient art of minor forms.

———. *Volkskunst in Europa*. Berlin: Ernst Wasmuth, 1926. 132 plates.

Similarly lavish color-plates of peasant art of all European countries.

GLAZIER, RICHARD. *A Manual of Historic Ornament*. London: B. T. Batsford, Ltd., 1906.

168 pp. 1926, 184 pp.

Evolution, tradition, and development of architecture and the applied arts, thus including some peasant art.

SPELTZ, ALEXANDER. *Styles of Ornament*. Leipzig: Brockhaus, 1910. 647 pp.

Similar to Owen Jones, but larger and more complete.

WHITTICK, ARNOLD. *Symbols for Designers*. London: C. Crosby Lockwood and Son, Ltd., 1935. 168 pp.

Civil and ecclesiastic symbolism: rambling in style, but interesting.

GRAVES, MAITLAND. *The Art of Color and Design*. New York: McGraw-Hill Book Co., 1941. 292 pp.

HOLME, CHARLES (editor). *Peasant Art in Australia*. London: "The Studio," Ltd., 1911. 46 pp., 816 illus.

———. *Peasant Art in Italy*. London: "The Studio," Ltd., 1913. 32 pp., 449 illus.

———. *Peasant Art in Russia*. London: "The Studio," Ltd., 1912. 31 pp., 549 illus.

———. *Peasant Art in Sweden, Lapland, and Iceland*. London: "The Studio," Ltd., 1910. 48 pp., 480 illus.

All are invaluable for the subject. Text is limited; mostly plates, some in color.

JONES, OWEN. *The Grammar of Ornament*. London: Bernard Quaritch, Ltd., 1910. 157 pp. Encyclopedic collection of historic motifs.

KAHN, ELY JACQUES. *Design in Art and Industry*. New York: Charles Scribner's Sons, 1936. 204 pp.

Interesting discussion, with illustrations, of art education in Asia.

## THE ARTS IN AMERICA

BAILEY, CAROLYN SHERWIN. *Pioneer Art in America*. New York: Viking Press, 1944.

Semi-fictional treatment of the diversified folk art of America; suitable for adults, although intended for older children.

COMMISSION ON SECONDARY SCHOOL CURRICULUM. *The Visual Arts in General Education*. New York: D. Appleton-Century Co., 1940. 166 pp.

Includes a very interesting presentation of art in American life.

KEPPEL, FREDERICK P. and DUFFUS, R. L. *The Arts in American Life*. New York: McGraw-Hill Book Co., 1933. 227 pp.

Invaluable; considers the social and individual aspects; an account and an explanation.

LADD, HENRY. *With Eyes of the Past*. New York: W. W. Norton & Co., 1928. 100 pp.

Brief but valuable.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. *Art in American Life and Education*.  
Bloomington, Illinois: Public School Publishing Co., 1941. 819 pp.

The fortieth yearbook; a symposium; essential, though various in approach and treatment.

WOODWARD, W. E. *The Way Our People Lived*. New York: E. P. Dutton & Co., 1944. 402 pp.

Exceedingly valuable.

## ART AND THE MACHINE AGE

CARRINGTON, NOEL. *The Shape of Things*. London: Ivor Nicholson & Watson, Ltd., 1939.  
209 pp.

Exceedingly sensible approach to art by way of human wants.

CHENEY, SHELDON, and CHENEY, MARTHA CANDLER. *Art and the Machine*. New York:  
Whittlesey House, 1936. 307 pp.

Comparisons of handcraft and machine-art; streamlining; the industrial designer; valuable, though somewhat dated already.

FAULKNER, RAY, and ZIEGFELD, EDWIN. *Art Today*. Minneapolis, Minn.: The University  
of Minnesota Press, 1938. 314 pp.

Excellent discussion and fine illustrations.

FRIEND, LEON, and HEFTER, JOSEPHINE. *Graphic Design*. New York: Whittlesey House,  
1936. 407 pp.

Includes lettering, posters, photography, advertising art, book arts, and an interesting section on art education: valuable.

GEDDES, NORMAN BEL. *Horizons*. Boston: Little, Brown & Co., 1932. 293 pp.

Discussion and prophecies by the eminent industrial designer.

HOLME, GEOFFREY. *Industrial Design and the Future*. London: "The Studio," Ltd., 1934. 160 pp.

Valuable text and well-chosen illustrations.

KAHN, ELY JACQUES. *Design in Art and Industry*. New York: Charles Scribner's Sons, 1936. 204 pp.

Comparisons between European and American systems of education in specialized art schools, and Asiatic training schools and systems.

MANGAN, JAMES T. *Design: The New Grammar of Advertising*. Chicago: Dartnell Corp., 1940. 73 pp.

Provocative text; excellent definition and discussion of design and analysis of advertising.

READ, HERBERT. *Art and Society*. New York: The Macmillan Co., 1937, 282 pp.

Valuable discussion of the machine age, early and contemporary.

TEAGUE, WALTER DORWIN. *Design This Day*. New York: Harcourt, Brace & Co., Inc., 1940. 291 pp.

Text inspiring and rational, with thrilling illustrations.

TUCKER, ALLEN. *Design and the Idea*. New York: The Arts Publishing Co., 1930. 82 pp.

A useful reference here as well as for the meaning of art.

VAN DOREN, HAROLD. *Industrial Design: A Practical Guide*. New York: McGraw-Hill Book Co., 1940. 388 pp.

Considers the new profession of industrial designer and his needed qualifications; gives actual guidance to the prospective student.

## DESIGN

BATCHELDER, ERNEST A. *Design in Theory and Practice*. New York: The Macmillan Co., 1921. 271 pp.

Example from the minor arts of historic periods, primitive and exotic arts: excellently presented, with interesting text; very weak student-designs should be disregarded.

BEST-MAUGARD, ADOLFO. *A Method for Creative Design*. New York: Alfred A. Knopf, Inc., 1927. 183 pp.

A system of using seven geometric motifs, from which he builds a vocabulary of natural forms for design and drawing, as well as abstract motifs of design; applications are mannered.

CHRISTIE, ARCHIBALD H. *Traditional Methods of Pattern Designing*. Oxford, England: Oxford University Press, 1909. 327 pp.

Excellent historic plates, with many types of decorative design.

CRANE, WALTER. *The Bases of Design*. London: G. George Bell & Sons, Ltd., 1904. 381 pp.

———. *Line and Form*. London: G. George Bell & Sons, Ltd., 1901. 288 pp.

Text exceedingly interesting in both books: influence of materials and methods, of racial and climatic heritage, and of the worker.

DAY, LEWIS F. *Nature and Ornament*. London: B. T. Batsford, Ltd., 1910. 284 pp.

———. *Ornament and Its Application*. London: B. T. Batsford, 1904. 319 pp.

———. *Pattern Design*. New York: Charles Scribner's Sons, 1933 (2nd Ed.). 306 pp.

All are valuable on the methods of various crafts, technique and its problems, and where to stop: illustrations include many handsome designs of historic type.

DEGARMO, CHARLES, and WINSLOW, LEON LOYAL. *Essentials of Design*. New York: The Macmillan Co., 1924. 255 pp.

Useful and interesting.

DOW, ARTHUR W. *Composition*. New York: Garden City Publishing Co., 1916. 255 pp.

Although dated, still a valuable reference.

GRAVES, MAITLAND. *The Art of Color and Design*. New York: McGraw-Hill Book Co., 1941, 292 pp.

Interesting chiefly for flat form; elaborate and complex formulas for composition, with carefully devised analogies to music and mathematics; interesting design tests; excellent reproductions of art works, contemporary and exotic as well as historic, with revealing comments on them.

NOBBS, PERCY ERSKINE. *Design*. London: The Oxford University Press, 1937. 412 pp.

Invaluable: accurate and interesting discussion of scientific facts of color and other art elements.

POORE, HENRY RANKIN. *Art Principles in Practice*. New York: G. P. Putnam's Sons, 1930. 242 pp.

Interesting illustrations; valuable text, although scattered as to organization.

RHEAD, G. WOOLISCROFT. *The Principles of Design*. London: B. T. Batsford, Ltd., 1913. 186 pp.

Interesting illustrations, although text is somewhat out of date.

ROSS, DENMAN W. *A Theory of Pure Design*. New York: Peter Smith, 1933 (revised edition).

Useful for comparisons.

TUCKER, ALLEN. *Design and the Idea*. New York: The Arts Publishing Co., 1930. 82 pp.

Valuable, interesting, and clear philosophy of design.

## MINOR ARTS AND CRAFTS

ADAMS, MAURICE SPENCER ROWE. *Modern Decorative Art*. London: B. T. Batsford, Ltd., 1930. 249 pp.

Shows luxurious types of articles and rooms.

BOLANDER, ELLA LANGENBERG. *Make Your Own*. Sandusky, Ohio: American Crayon Co., 1941. 46 pp.

Various crafts, with directions: lettering, stenciling, gift-wrapping, envelope making for gift cards, paper cutting, several simple methods for painting and printing.

BROWNE, SIBYL; TYRRELL, ETHEL; ABBEHL, GERTRUDE; and EVANS, CLARICE. *Art and Materials for the Schools*. New York: Service Center Committee, Progressive Education Association, 1943. 112 pp.

Instructions and sources for simple and inexpensive materials.

- CANE, EDNA SILENA. *Craft Work*. New York: Century Co., 1929. 267 pp.  
 Designs shown are often very poor, but methods are useful; includes painting of furniture, making lamp shades, fabric decoration, making of toys, baskets, cane-seating, block printing.
- CHAPPELL, WARREN. *The Anatomy of Lettering*. New York: Loring & Mussey, 1935. 45 pp.  
 One of the best for theory of letter-form and spacing.
- CHERRY, RAYMOND. *General Leathercraft*. Bloomington, Illinois: McKnight & McKnight, 1940. 79 pp.  
 Useful handbook for materials and methods; beware of most of the designs.
- CHRISTIE, MRS. ARCHIBALD. *Samplers and Stitches*. London: B. T. Batsford, Ltd., 1920. 142 pp.  
 Source book for stitches and with fine designs showing their applications.
- CORBIN, THOMAS J. *Hand Block Printing on Fabrics*. London: Sir Isaac Pitman & Sons, Ltd., 1934. 83 pp.  
 Excellent for stencil and block print processes, preparation of fabrics; useful for dyes and dyeing.
- DAVIDSON, IRENE; MIAL, AGNES M.; and POLKINGHORNE, R. K. *Needlework and Crafts*. New York: Chemical Publishing Co., 1940. 340 pp.  
 More ample than discriminating, but with some very useful things.
- DODDS, ROBERT E. *Handicrafts as a Hobby*. New York: Harper & Bros., 1939. 138 pp.  
 General, but interesting.
- ELLIS, CLIFFORD, and ELLIS, ROSEMARY. *Modelling for Amateurs*. London: "The Studio," Ltd., no date. 79 pp.  
 Very attractive and fascinating; includes creative toys.
- GLANNON, EDWARD. *Making Your Own Art Materials*. New York: Museum of Modern Art, Committee on Art in American Education, 1943. 15 pp.  
 Excellent instructions, with materials and methods and needing no elaborate equipment, for making poster paint, pastel, charcoal, oil paint, finger paint.

HOGARTH, MARY. *Modern Embroidery*. New York: Studio Publications, Ltd., 1933. 128 pp.  
Mostly analysis of handsome examples illustrated.

HOLME, CHARLES G. (Editor). *Lettering of Today*. London: "The Studio," Ltd., 1937.  
144 pp.  
Includes modern informal handwriting, and the finest commercial lettering; a stunning book.

HORNUNG, CLARENCE PEARSON. *Handbook of Designs and Devices*. New York: Harper & Bros., 1932. 204 pp.  
Extremely interesting and varied geometric motifs; almost no text.

HUTCHINS, MABEL REAGH. *Creative Handicrafts*. Pelham, New York: Bridgman Publishers, Inc., 1938. 93 pp.  
Rather elementary but useful; includes leathercraft, pottery, weaving, basketry, metalcraft, bookbinding, block printing, dyeing.

*Kunst und Kunsthandwerk am Bau*. Stuttgart: Julius Hoffmann, 1938. 206 pp.  
Handsome and technically excellent modern work in stone, metals, wood, painting, glass, mosaic, tile, brick, grillework; limited text is in German; no author given.

LUKOWITZ, JOSEPH J. *Fifty-five New Tin Can Projects*. Milwaukee, Wisconsin: Bruce Publishing Co., 1936. 80 pp.  
An extremely minor craft, but fun and with some value; beware of a number of dreadful designs included.

MANN, KATHLEEN. *Appliqué Design and Method*. London: The Macmillan Co., 1937. 48 pp.  
Effective and interesting.

*Manuscript Writing and Lettering*. London: Sir Isaac Pitman & Sons, Ltd., no date.  
164 pp.  
Practical and attractive; no author given.

MERIVALE, MARGARET. *Furnishing the Small House*. New York: Studio Publications, 1944 (revised edition). 96 pp.  
Contemporary interiors with many industrial and handcraft objects.

- MOORE, FRANCES M. *Handwriting for the Broad-edge Pen*. Boston: Ginn & Co., 1926.  
Includes a teacher's manual and six small books of examples, with pages for practice.
- PAYANT, FELIX. *Create Something*. Columbus, Ohio: Design Publishing Co., 1939. 166 pp.  
Experimental approach; handbook and reference both; very useful.
- . *Design Techniques*. Columbus, Ohio: Design Publishing Co., 52 pp.  
For many types of graphic art, also stencil, collage, textile decoration, decorative papers.
- PERRY, EVADNA KRAUS. *Art Adventures with Discarded Material*. New York: Noble & Noble, Publishers, Inc., 1933. 169 pp.
- . *Crafts for Fun*. New York: William Morrow & Co. Inc., 1940.  
Both experimental and attractive.
- PHILLIPS, ANNA M. LAISE. *Hooked Rugs and How to Make Them*. New York: The Macmillan Co., 1930. 161 pp.  
Better for method and interest than design.
- SUNNER, HARRY, and AUDRIETH, RALPH M. *Handbook of the Silk Screen Printing Process*. New York: Arthur Brown & Bros., 1941. 64 pp.  
Very careful directions for several methods of preparing the stencil and printing, with supplies and procedure exactly stated.
- TANNAHILL, SALLIE B. *P's and Q's*. Garden City, New York: Doubleday, Page & Co., 1924. 108 pp.  
Best general reference on lettering and its uses; stresses spacing as well as form.
- THESIGER, ERNEST. *Adventures in Embroidery*. London: Studio Publications, 1942. 104 pp.  
Excellent, modern, experimental.
- ZWEYBRUCK, EMMY. *Hands at Work*. Sandusky, Ohio: American Crayon Co., 1942. 46 pp.
- . *Second Stencil Book*. Sandusky, Ohio: American Crayon Co., 1940. 16 pp.  
Instructions, with designs, for stencil techniques in textile designing and various textile crafts; charming and effective though mannered.

## ART AND EDUCATION

COLE, NATALIE ROBINSON. *The Arts in the Classroom*. New York: John Day Co., 1940. 137 pp.

Fascinating and inspiring account of the awakening of creative responses in primary-age children.

COMMISSION OF SECONDARY SCHOOL CURRICULUM. *The Visual Arts in General Education*.

New York: D. Appleton-Century Co., 1940. 166 pp.

Valuable; evaluation of concepts of Art Education; the adolescent and his needs for experience in art; qualifications and preparation of an art teacher; art in American life.

D'AMICO, VICTOR. *Creative Teaching in Art*. Scranton, Pa.: International Textbook Co., 1942. 261 pp.

Understanding the child as artist; many mediums for working.

GIBBS, EVELYN. *The Teaching of Art in Schools*. New York: Greenberg Publisher, Inc., 1936. 71 pp.

Design and crafts, drawing and painting.

GREGG, HAROLD. *Art for the Schools of America*. Scranton, Pa.: International Textbook Co., 1941. 191 pp.

Excellent: illustrations of children at work.

LEE, KATHRYN DEAN. *Adventuring in Art*. New York: D. Appleton-Century Co., 1939. 224 pp.

High-school age pupils in the Chicago University demonstration school; includes contemporary industrial arts, and appreciation of historic art.

MACCONNELL, CHARLES M.; MELBY, ERNEST O.; and ARNDT, CHRISTIAN O. *New Schools for a New Culture*. New York: Harper & Bros., 1943. 229 pp.

Pioneer experiment in high-school education, initiated in 1937 at Evanston Township High School; exploring the values of democracy to establish habits and attitudes productive of good citizens; inspiring.

- MACDONALD, ROSABELL. *Art as Education*. New York: Henry Holt & Co., 1941. 309 pp.  
Exploration in the arts at the Lincoln High School, New York City.
- MAJOR, CHARLOTTE R. *Teaching Art in the Elementary School*. New York: Service Center Committee, Progressive Education Association. 30 pp.  
A brief bulletin but useful.
- MEARNS, HUGHES. *Creative Youth*. Garden City, New York: Doubleday, Page & Co., 1925. 234 pp.
- . *The Creative Adult*. New York: Doubleday, Doran & Co., 1940. 300 pp.  
Both are essential to understanding.
- OWATONNA ART EDUCATION ; ZIEGFELD, EDWIN ; and SMITH, MARY ELINORE. *Projects in Art Education*. Minneapolis, Minn.: University of Minnesota Press, 1944.  
A set of six booklets, with art units for a) Grades 1-3; b) Grades 4-6; c) High School. Includes a discussion of art for daily living.
- PEARSON, RALPH M. *The New Art Education*. New York: Harper & Bros., 1941. 256 pp.  
Modern theory and teaching methods, with applications; somewhat fanatical but definite and challenging; emphasis on creativeness, especially for older children and inexperienced adults.
- PERRINE, VAN DEARING. *Let the Child Draw*. New York: Frederick A. Stokes Co., 1936. 58 pp.  
Fresh and authentic art of small children.
- PERRY, KENNETH FREDERICK. *An Experiment with a Diversified Art Program*. New York: Bureau of Publications, Teachers College, Columbia University, 1943. 163 pp.  
Challenged by the confusion of school administrators in the public-school teaching of art, the author attempts to evaluate the criticisms and questions of teachers and to formulate his own program.
- POWELL, LYDIA. *The Art Museum Comes to the School*. New York: Harper & Bros., 1944. 160 pp.  
Modern educational programs in the larger cities: Buffalo, Chicago, Cleveland, Milwaukee, New York.

RUBY, WARREN A. *The Art Teacher*. Mason City, Iowa: Ruby Distributing Co., 1943. 135 pp.  
For the rural or elementary teacher without much training; color, design crafts, modeling.

RUFFINI, ELISE E., and KNAPP, HARRIET E. *The New Art Education*. Sandusky, Ohio: American Crayon Co., 1944. Nine books, 40 pp. each.  
Sketchy and inviting; art for the pupil, his school, home, and community; from grade one through high school.

STRICKLER, FRED. *An Art Approach to Education*. New York: A. G. Sciler, 1943. 216 pp.  
Rambling but interesting and usable remarks on art and education.

WINSLOW, LEON LOYAL. *The Integrated School Art Program*. New York: McGraw-Hill Book Co., 1939. 391 pp.  
Art in the modern world; stresses a design for art education which builds personality through democratic procedures, for the civic as well as aesthetic growth of children.

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